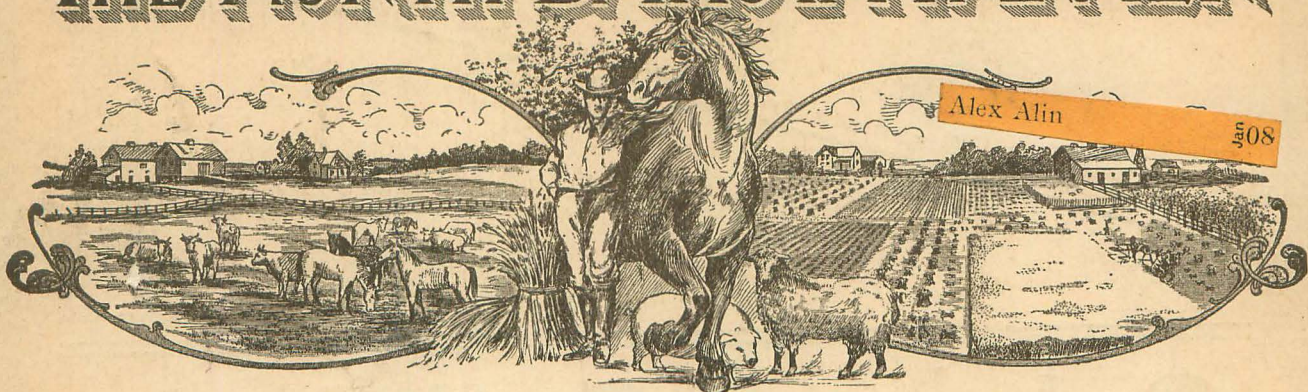


THE NORTH DAKOTA FARMER

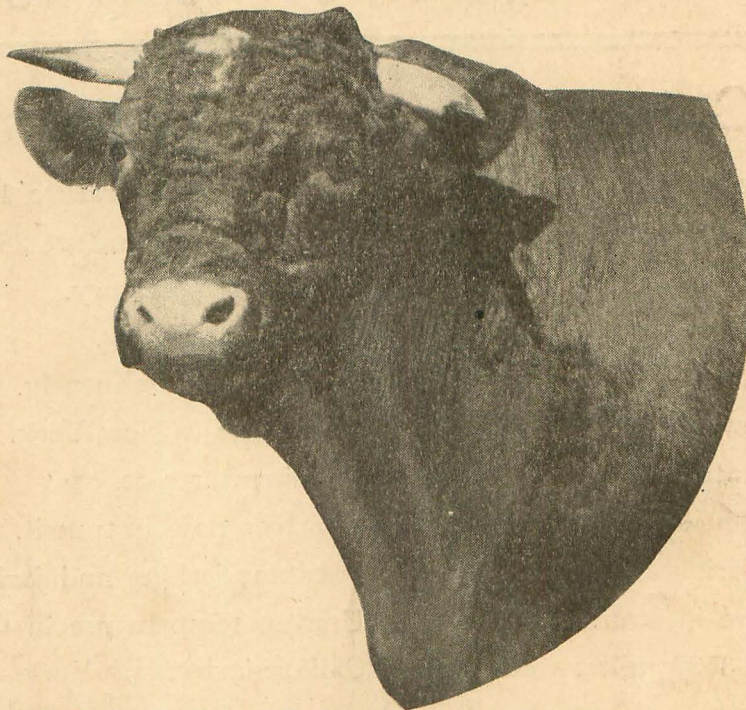


WE CATER ONLY TO THE INTELLIGENT FARMER

Vol. 9, No. 5
LISBON, N. D.

NOVEMBER 15, 1907

50 Cents a Year
FARGO, N. D.

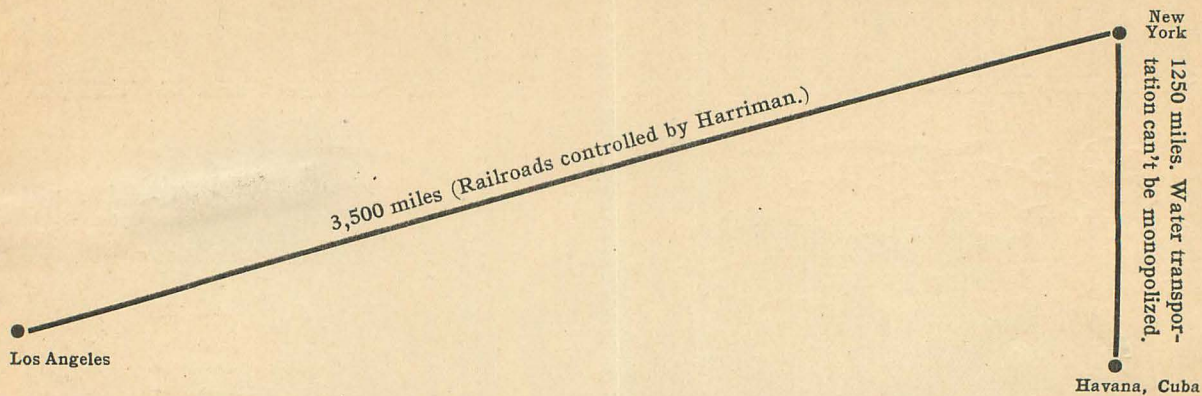


A SHORTHORN BEAUTY FROM THE HERD OF W. W. BROWN, AMENIA, N. D.

ANNOUNCEMENT.

We are pleased to inform the readers of The North Dakota Farmer that with the December or January issue President Worst of the Agricultural College will begin a series of intensely interesting articles on his recent European tour. These articles will be illustrated from photographs taken on the trip. The tour was undertaken in the interest of North Dakota farmers and the articles are written especially for The North Dakota Farmer. There is no closer observer in the state, and none more capable of clearly expressing himself, than President Worst. Therefore a rich treat is in store for our readers.

978.4
N814
Graham



Cuba vs. California

COMPETITORS IN CITRUS FRUITS.

Cuba

Maximum temperature 98, (6 yrs.)
Minimum temperature 46, (6 yrs.)
No Irrigation.
No frosts possible.
No earthquakes.
1250 miles to New York.
Water transportation.
Three days in transit to New York.
No jerking and jaring of fruit.
Even temperature in transit.
Cuba to Europe 3500 miles, water tran.

California

Maximum temperature 109.
Minimum temperature 28.
Irrigation necessary.
Frost occasionally.
Earthquakes frequently.
3500 miles to New York.
Refrigerator cars.
Fourteen days in transit.
Constant jerking and jaring.
Uneven temperature in transit.
California to New York, 3500 by rail.

Oranges grow wild in Cuba.

Orange groves in bearing in California are worth \$500 to \$1500 per acre. What will they be worth in Cuba?

Write for Pamphlet and maps. All about Cuba.

North Dakota Company,

Gray Block,

VALLEY CITY, NORTH DAKOTA

Principal Contents for November

	Page		Page
Agricultural College News -	9	Place for Condimental Foods	3
Among Our Advertisers -	32	Poultry Department -	28
Damaged Wheat -	8	Pure Food Department -	14
Editorials -	12	School in Every Home -	6
Home Affairs -	17	Shade Trees and Gardens -	10
Livestock Department -	21	Soil Breathing -	3
New Institute Director -	7	Swine Department -	27
Oils, Paints and Paint Pigments	29	U. S. Reclamation Service in N. D.	5



**IT LOADS ITSELF
AND FIRES 5 SHOTS IN 1 SECOND**

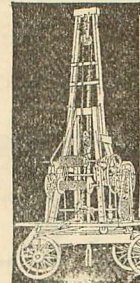
Remington

AUTOLOADING RIFLE

Five smashing knock down blows by a hammerless, repeating big game rifle, which loads itself. Made in .30-30 Rem., .35 Rem. and .32 Rem. Autoloading calibres. A modern big game rifle which lists at \$30 subject to dealers' discounts.

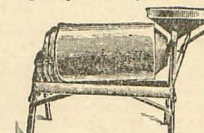
Write immediately for illustrated catalogue.

REMINGTON ARMS COMPANY, Ilion, N. Y.
Agency, 315 Broadway, New York City.



\$2000.00
A YEAR INCOME.
The Powers Well-Boring and Drilling Machine pays better than farming—less money invested and more clear profit. The same team of horses that pulls the machine over the roughest hilly roads also furnishes the power for drilling. One man runs it alone, without hired help. Easy terms. Write for catalogue M.
LISLE MFG. CO.,
Box 45, Clarinda, Ia.

JUMBO THE GREAT SUCCOTASH SEPARATOR
Capacity 60 bu. per hour. separates wild or tame oats from wheat and barley, the only perfect cockle separator on the market, to clean your seed wheat, the best flax cleaner made as well as for timothy, clover, etc. The Jumbo has 48 sq. feet of galvanized wire cloth to do the work. Six times as much surface, as any machine made. That's why the Jumbo does the best work and has the greatest capacity of any grain separator and is guaranteed to give satisfaction, or can be returned and money will be refunded. It won't cost you anything to try it and satisfy yourself. Write today for free catalogue to the
MINNEAPOLIS SEPARATOR CO.,
2949 Lyndale Ave. S. **MINNEAPOLIS, MINN.**



BE A RAILROAD MAN
Firemen and Brakemen
Earn from \$100 to \$185 a month. Graduates of this school in great demand. Actual railway officials teach you by mail during your spare time, at small cost. Free catalog, etc.
The Wenthe Railway Corres. School,
Box 750, Freeport, Ill.



\$6,000 BUYS 300 ACRE FARM
In Nelson county, North Dakota. 150 summer-fallow ready for crop; 140 acre pasture, sheep fence, with 25 acres of young natural timber; 10 acres meadow, more could be broken. House, barn and good water. Farm lies on Stump Lake. \$1,000 down, balance on long time at 5 per cent.

EASTGATE BROS.,
Larimore, - - - N. D.



FURS WANTED
Also
HIDES, PELTS & WOOL
Top prices and Satisfactory Returns guaranteed. We sell all kinds of Steel Traps at lowest prices, and Tan all kinds of Hides and Furs for Robes and Coats. Write for our price lists.
ALBERT LEA HIDE & FUR CO.,
264 Market Street, Albert Lea, Minn.



MODEL B Bull Dog SUSPENDERS
Just the Thing for His Christmas
MODEL B Bull Dog Suspenders
THE STANDARD because they fit, because they contain more and better rubber than other makes, allowing easy, free movement of the body in every position; because they have gold-gilt metal parts, guaranteed not to rust or tarnish, and because the cord ends are stronger than usually found in suspenders, preventing them from fraying and wearing through.
THEY OUTWEAR THREE ORDINARY KINDS, WHICH MEANS THREE TIMES THE SERVICE OF USUAL 50 CENT SORTS.
The Most Comfortable Suspenders Made for Man, Youth or Boy in light, Heavy or Extra Heavy Weights, Extra Long (No Extra Cost) Sensible, Inexpensive Gifts Every Man and Boy Will Gladly Receive
FOR THE BEST INSIST ON MODEL B BULL DOG SUSPENDER.
HEWES & POTTER, Dept. 980
87 Lincoln St. Boston, Mass.
Our useful BULL DOG SUSPENDER COMB AND CASE mailed for 10c, postage. Instructive booklet, "Style, or How to Dress Correctly," free if you mention this publication.

WHITE
Portable and Stationary Gasoline Engines
"The Old Reliable Line"
An engine built for long heavy service and one that has stood a ten year test of time. For threshing and other farm use the White is the ideal power. Can be run at 1-2 the expense of steam. All parts interchangeable and easily adjusted. Four pairs of water cool. The 30 horse power size with the White patented cooler. Special oil cooled engine for pumping and other light work. More than 100 designs to choose from.
Globe Iron Works
Menomonie, Wis.
Box 79



The North Dakota Farmer Better in 1908.

FORTY PAGES.

SPECIAL ILLUSTRATED ARTICLES.

BETTER SERVICE.

Every delinquent subscriber is a "rider" instead of a "pusher." Won't you help "push?"

ASK QUESTIONS

If there is anything you want to know about the GOVERNMENT IRRIGATION PROJECTS at Williston, Buford-Trenton or the Lower Yellowstone Valley, ask us and we will gladly advise you. Possibly you do not fully understand the general plan for supplying and distributing the water to the farms or perhaps you would like to know more about the formation and operation of the farmers' corporations known as "Water Users' Associations". Under the rules and regulations of the United States Reclamation Service, these associations have practically unlimited powers and privileges. They can borrow or loan money, build and operate telephone and telegraph lines and have numerous valuable rights, in addition. If the railway companies do not provide adequate transportation facilities the associations can construct and operate lines of their own, running through the project. As the Williston Project is a pumping project, electricity being the power used, the farmers whose lands are under it will be able to light their houses, have telephone connections and use power for other purposes, all at actual cost price, inasmuch as they are stockholders in the corporation which owns the power plant.

With the aid of these improvements, together with the establishment of additional schools, good roads, rural free delivery routes, a state and Government Experimental Farm combined, the renewing of Missouri river transportation, giving unexcelled outlet for the products of irrigation, the establishment of a modern, up-to-date flour mill and with the Amalgamated Sugar Co. ready to construct a \$1,000,000 beet sugar factory, it is no wonder the lands under these Government Irrigation Projects are rapidly increasing in value and that the City of Williston, itself, is building up at an exceptionally rapid rate.

THINK IT OVER.

YOU WILL DECIDE it is USING GOOD JUDGMENT to come out and see for yourself. After seeing, you will decide it is using good judgment to secure 40, 60 or 80 acres of land under these projects NOW, when they can be bought at from \$15 to \$25 per acre. You will decide that in less than five years this same land will sell at \$100 and more per acre. You will decide that it is using good judgment, before buying, to secure the assistance and advice of those who have become thoroughly acquainted with the country and conditions through long personal experience. In this last decision you will find it is using good judgment to go to

THE WILLISTON LAND COMPANY,

(INCORPORATED)

WILLISTON, NORTH DAKOTA,

Responsibility of Stockholders \$50,000.00.

W. B. OVERSON, President.

JOSEPH W. JACKSON, Vice Pres.

E. R. BROWNSON, Sec'y.

R. M. CALDERWOOD, Treasurer.

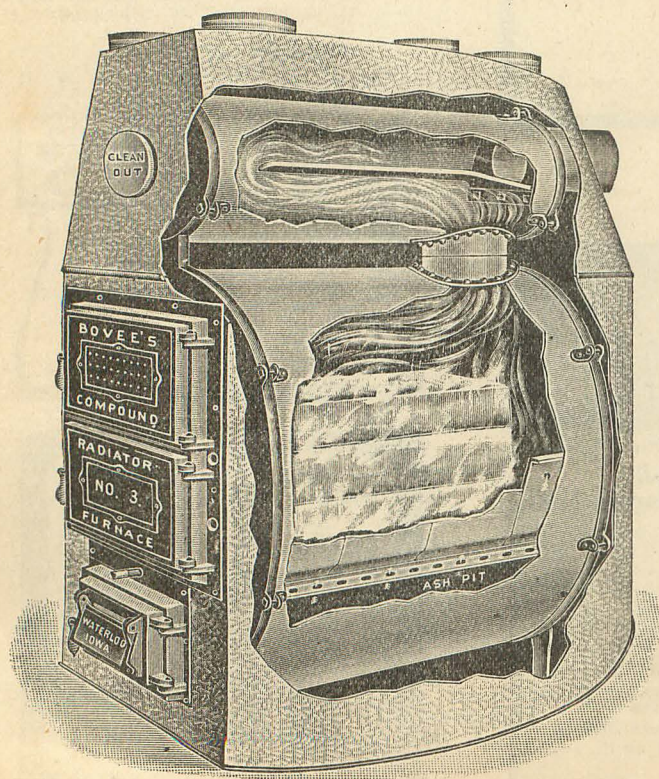
E. G. GREENUP, General Manager.

LONG-ESTABLISHED.

RESPONSIBLE.

RELIABLE.

Ask for Illustrated Booklet, Government Maps, Etc.



BOVEE'S

Straw Burning Furnace

Save all of your fuel bill by burning baled straw. Be independent of Railroad combines. This furnace burns straw baled by any common baler. Will burn bales 17x21 inches. Straw or hay makes neat handy fuel and will hold fire over night. It can be baled for the cost of hauling coal and saves the entire fuel bill. This furnace is also a perfect and very economical wood, coal or lignite coal burner. It has Bovee's Hot Blast Ventilating System and Return Circulating Radiator, giving perfect ventilation and saves one-third of the fuel.

Send for our special prices and illustrated catalog free.

We manufacture the largest and best line of furnaces, 24 styles and sizes.

BOVEE GRINDER & FURNACE WORKS,

Waterloo, Iowa.

THE NORTH DAKOTA FARMER

Vol. 9, No. 5

LISBON and FARGO, N. D., NOVEMBER 15, 1907

50 Cents a Year

OF GENERAL INTEREST

THE PLACE FOR CONDIMENTAL FOODS

Prof. Thomas Shaw

All the experimenting done by the experiment stations thus far has been distinctly unfavorable to the use of condimental foods. Every professor who has written upon the subject as far as I have been able to ascertain has directly or indirectly intimated that live stock do not need them, and that to buy them is a needless waste of money.

In the face of such testimony it takes some courage to say that there is a place for condimental foods in the rearing and feeding of live stock, yet that is just exactly what I say. I go a step further and say there will be a place for them as long as live stock continue to be reared.

I desire to speak guardedly lest I should be misunderstood. This article is not a defence of any stock food. It is not written in the interest of any manufacturer of stock foods. It does not for one moment combat the claim that many so-called stock foods are worthless, nor does it say that many of those that are helpful have not been sold at prices that have been too dear. It is the principle that I wish to defend, that there is a legitimate place for condimental foods in the economy of live stock production. I may add that there is a place in live stock production when it is not necessary, or, perhaps even desirable, to use them. Station workers might as well say that there is no place for a tonic or an appetizer in medicine, as to say that there is no place for condimental foods in the economy of feeding. I am not speaking at random. I have fed hundreds of pounds of condimental food.

Some Good Uses

Where, then, is the place for the use of such foods? Why, in feeding

animals that are not thriving as they should because of untoward conditions, or because of digestive derangement. The following are instances: Horses that have been running in the yard and feeding on dry food while getting them ready for spring work. Milch cows that for some reason show lack of sufficient appetite to produce large milk yields. All animals that have been injured by overfeeding to the extent of producing digestive derangement. Animals that are being hard crowded toward the finishing period. If asked how long the feeding of such condiments shall be continued, I answer, until the condition of the animal becomes normal.

Then, where or when is it not necessary to feed them? When an animal is thriving and when the food given to it is suitable, why it is then better to let well enough alone. The stomach then does not need any stimulating. But begin pushing the animal, as when fitting it for the fair or when putting it into a milk test, as in the case of a cow that is to undergo such test, then it is legitimate to stimulate the digestive organs to greater action for a time. In other words, I do not think that the continuous feeding of condimental foods is necessary or desirable in the healthy animal under average conditions of keep.

Why, then, have so many of the stations decided against the use of such foods? That is just the question, why have they done so? Was it because they did not properly study the question? Was it because in the experiments conducted they used the condiments as foods rather than condiments? Were they influenced in their leanings by what they felt to be a popular attitude for the time being? I cannot tell why they did so. But they are on record and they can not draw back now.—Orange Judd Farmer.

SOIL BREATHING

It may seem a novel idea to many of our readers that soils breathe just as animals do. In fact, if soils did not breathe, there could be no growth, because the oxygen of the air is essential to the growth of plants. They breathe, too, with some regularity, but not with the same regularity as animals or men. In other words, nature's method, or, as we should say, the Divine law, provides for forcing air in and out of soil, thus supplying the wants of all living things including even the germ life in the soil and without which germination of any kind would be impossible.

One method of soil breathing is due to the changes in the soil temperature. The air expands with heat and contracts with cold; therefore, when the air in the soil is warming up, part of it is forced out, and as it cools off, air is forced in. When the change in the temperature of the surface amounts to sixteen or twenty degrees, about fourteen cubic inches are forced out for each square foot of surface.

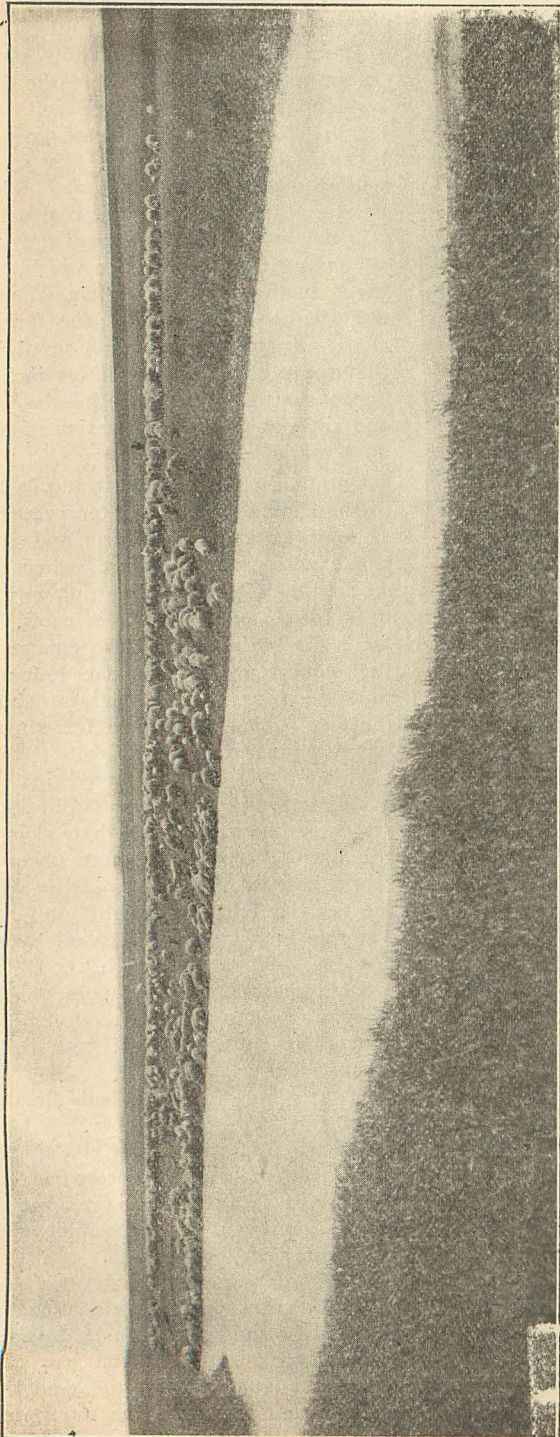
Then, again, air is forced in and out by barometric pressure. Our readers have often noticed that sloughs will begin to run just before a heavy rain; that is, the barometer is low, the air is light in weight and the water is forced out of the soil by all pressure. Waves of high and low pressure pass any given point about twice a week and this, so to speak, pumps air out of the soil and again pumps it in.

Another way in which soils breathe is by the force of winds which blow in gusts, and this blowing of the wind over the surface forces air out and forces it in just as you would force air out and in a drowning man by pressure on the stomach.

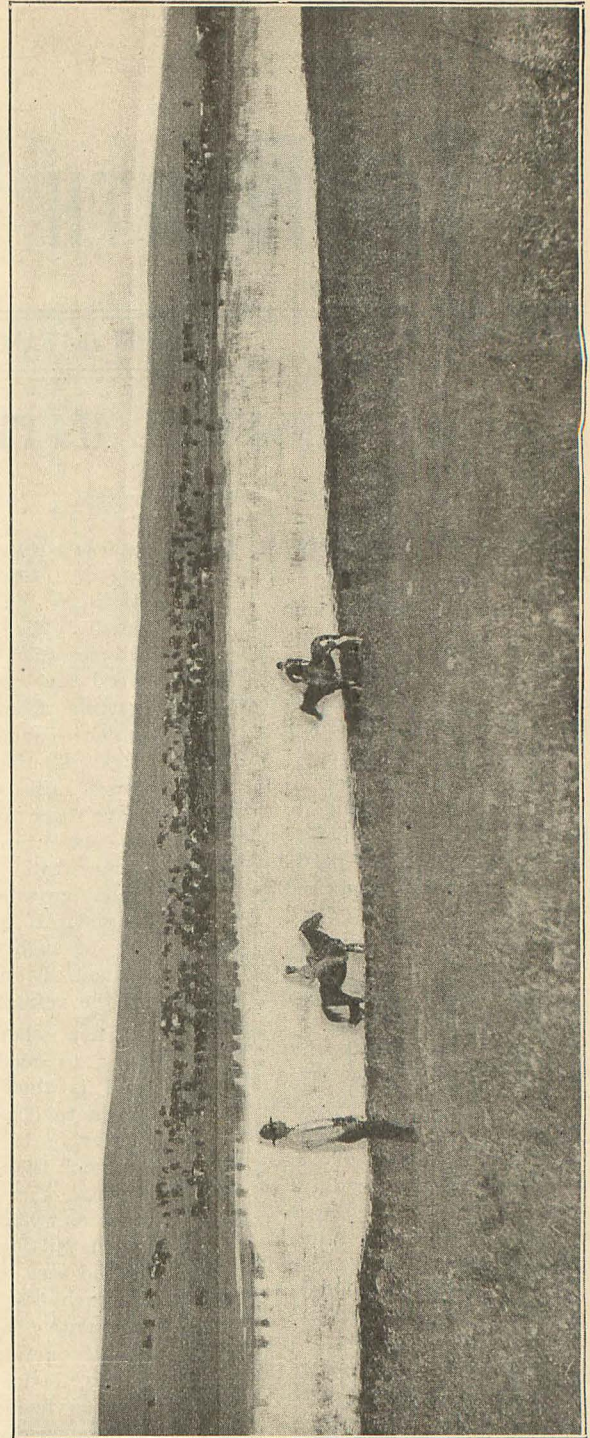
Again, when a field is drained and the water runs out, the air of course is forced in and so when a heavy rain comes it forces the air out, in case of drained land into the tile, and this again is replaced when the water runs off.

In all these ways soils breathe, we

might say naturally or by the force of the permanent laws of nature. Then, again, the breathing of the soil is affected by cultivation. Plowing makes a complete and sudden change of the air, and so, in fact, in a lesser degree, harrowing and disking and all the other farming operations. When soils become crusted on top, and especially when alkali is present, it is necessary to break up this crust by harrowing or rolling and thus permit the access of the air to the roots of plants, without which they can not thrive. The damage done to the soil



Sheep and Cattle Raising Near Bordulac, N. D.



by the crust is not solely in that it permits the escape of water, but prevents the entrance of air. In the same way clover and alfalfa and other deep rooting plants, as well as in fact all root crops, by sending their roots down into the soil make air passages, so to speak, and in the same way pumping of water out of the soil by the roots makes more room for the air, so that in this way soils breathe just as truly as do men or animals. Soils that do not breathe are for the time being dead soils.

THE U. S. RECLAMATION SERVICE IN ACTION IN NORTH DAKOTA (Third Paper)

By E. R. Brownson, Williston, N. D.

In the search for opportunities to spend all or a portion of North Dakota's \$5,500,000 interest in the Reclamation Fund, it soon became apparent to the Engineers of the Service that the most feasible irrigation projects in the state were found along the Missouri River. At Williston a tract of some 40,000 acres of excellent land, lying along the river bank and stretching due north from the Missouri River up the Little Muddy Valley, appeared especially susceptible. The Buford-Trenton flats, some 35,000 acres in extent, were found ideally located with respect to irrigation, lying low and level and immediately adjacent to the river. The feasibility of irrigating these tracts having been determined, the next step was to secure the consent and co-operation of the land-owners whose fields would come under the ditches. 85% of the irrigable area was in private ownership and it was necessary to have the consent and co-operation of the owners of at least 90% of that amount before anything definite could be done toward actual construction. Mass meetings of these farmers were held from time to time, at which the matter was thoroly gone over, both pro and con. Irrigation was a new thing to the great majority of these men, most of whom had come from the Red River Valley, Minnesota, Wisconsin, Iowa, Illinois, Indiana and other central and eastern states.

While all had read something of irrigation and a few had seen it carried on on a small scale, mostly by old-timers located along the creek valleys, still they were not sufficiently familiar with the possibilities to enter into a contract binding them to take water of the government. Consequently a campaign of education was inaugurated. Engineers and officials of the Reclamation Service who had had years of practical experience in irrigation, talked to these farmers, explaining both the difficulties and advantages of irrigation to be gained. The government thru the Agricultural Department, supplied literature pertaining to irrigation and it was spread broadcast among them. State Engineer Fellows, who has been closely identified with practical irrigation and the construction of irrigation projects in Colorado and other western states, for many years, did much to enlighten, answering thousands of questions from interested farmers. They had paid in their portion of the Reclamation Fund and while most anxious to secure all the benefits due them therefrom, they were unwilling to assume the responsibilities

demanding until thoroly convinced that it was greatly to their interests to do so. They were learning more of irrigation daily, but an object lesson—an object lesson on a large scale, where they could see and believe—was what they wanted. Therefore the Great Northern Railway Company, which company has taken a deep interest in the installation of these Government Projects, invited as many

Taft Runs

With difficulty on account of his great weight; but when he does move, it counts. So with some of our subscribers: they are slow in responding, but when they do, it counts. Kind words do not pay bills for fuel, employees and paper, but with the cash they do help. Try it.

Churchs Ferry, N. D., Oct. 29, 1907.
W. G. Crocker,
Lisbon, N. D.

Dear Sir:-

Please find fifty cents enclosed to pay subscription for North Dakota Farmer.

The people of North Dakota appreciate the great, good work Prof. E. F. Ladd is doing for our state, and we all think of him as one of our first citizens, patriots and scientists.

I wish the North Dakota Farmer abundant success,

Yours truly,

John Severson.

Lisbon, N. D., Oct. 31, 1907.

John Severson,

R. 2. Churchs Ferry, N. D.

Dear Sir:-

Your valued favor of the 29th is at hand and contents noted. I certainly appreciate your kind words and good wishes. Your estimate of our editor agrees with that of the writer, who would never have made such sacrifices in time, labor and money for the North Dakota Farmer the past five years, had he not the greatest faith in its editor and the state of North Dakota, for which Mr. Ladd so unselfishly and incorruptibly writes and acts.

I assure you that the business management of this paper will, as it has in the past, live up to the policy its editor has adopted, and will patiently wait for the financial returns such a policy should in justice receive.

Thanking you for your substantial evidence of good-will, I am,

Yours for North Dakota,

W. G. Crocker.

Upham, N. D., Oct. 14, 1907.

I cannot farm my section of land without your paper, as it and the N. D. A. C. are my guides on the farm.

J. P. Ebersole.

of the farmers as wanted to go and under guidance of a high company official a coach-load journeyed to Billings, Bozeman and other sections in Montana, where they beheld irrigation in full sway.

On September 30, the machinery of the Williston plant was started up, a current of 22,000 volts generated and transmitted to the floating barge at the river. Here two dynamos, operating enormous pumps, took the water from the Missouri at the rate of 780 barrels per minute, carried it thru flexible pipes to the settling vat, where the river deposit of silt settled. From this vat it was syphoned under the Great Northern tracks to the main canal and thence to the power plant. Here it was again pumped thru concrete pressure pipes to a height of 60 feet, where it is turned into the high-line canal and carried to the lands at the upper end of the project.

The ordinary layman has no conception of the ease with which large volumes of water can be pumped where proper conditions prevail. To stand at the bulkheads of the reservoir and see streams of water 24 inches in diameter pour out of the pipes leading from the barge, leads one almost to believe it comes from force of gravity. With no perceptible jar on the huge barge, these pumps keep up their work day and night and that they will supply water in much greater quantities and faster than it can be used, even 20 miles away, can not be doubted.

GENUINE BARGAINS In a few partly improved farms in the timber. Plenty of fuel, good soil. Best of water and lots of tame grasses and clover. \$15.00 to \$25.00 per acre. Easy terms. Send for free souvenir book.

J. A. SEDGWICK,

Wadena,

Minn.

How is This?

Last week Aaker's Business College filled 9 out of 15 positions offered as follows: O. Thorpe with St. Croix Lumber Co., Winton; C. E. Lee with Empire Works, Moorhead; Miss Ethel Cunningham with Board of Trade, Minneapolis; H. H. Haugerud with Bowers Bros., Fargo; M. E. Beebe as teacher in Phillips Academy, New Rockford; Emma Kopperud with E. Smith-Peterson, Park River; Emma Jesten, Pioneer Ins. Co., City, Arthur Johnson with Ellefson Cash Grocery, City; and A. Stoll with Expansion Lumber Co., Expansion, N. D. The above shows what we are doing for our students when nearly all schools are closed doing nothing for their graduates. For a course also in telegraphy address the school at Grand Forks or Fargo, N. D.

A SCHOOL IN EVERY HOME

Who would have dreamed a decade ago that one cent plus a desire would bring to the young people of North Dakota a practical course in farming, similar to that taught in the great colleges by the best teachers? The North Dakota Agricultural College has recently established a correspondence course in agriculture for any person in the state.

While this course is adapted to all who desire an elementary knowledge of agriculture it should appeal especially to teachers who will in the near future be presenting this study in the schoolroom. The following interview with Mr. G. W. Randlett, in charge of the correspondence course of the Agricultural College, will no doubt prove of more than ordinary interest to parents and young people, and especially to the teachers of North Dakota.

"The purpose of this course is to create an intelligent interest in country life. We wish to interest the young people in the crops grown and in the soils that grow them; in the trees that border our streams; in the fruits, and in the flowers. We want them to know something about the domestic animals, and their relationship to farm life, over and beyond the questions of chores and labor. And by widening their interests in the things about them we hope many of our young men and women who are now inclined to drift away from the farm may find the old home the most desirable place to live. By the presence on the farm of our best and most enthusiastic young men and women, a greater North Dakota will be created.

In this somewhat unique correspondence course offered by the Agricultural College, the student takes up the study of plant types grown on the farm, such as corn, wheat, emmer, the grasses, etc. The work is sufficiently thoro and extended to enable this to get an idea of the forms, types, botanical relationships, market classifications, and grades of our leading grains. Birds are studied, not only from the standpoint of their desirability as companions and songsters, but also for their economic value as protectors of grains and fruits from insects. We carry the student thru a somewhat brief but very interesting study of vegetables and garden flowers. We give him an idea of the kinds of trees likely to succeed in the state, and the best methods of planting and caring for them.

We give the student something to interest him. It is a great thing to see more than mere earth in the soil you are tilling; something more than labor and its monetary rewards in the products of the farm. We take up the various methods of soil culture, and also spend some time with our students studying

the animals of the farm, their types and breeds, and the peculiarities of each."

Asked as to the method of presenting the course, Supt. Randlett replied:

"We keep in touch with each student thru correspondence. A text book is used and followed, and matter of especial interest found in the agricultural bulletins is assigned as related reading. Simple laboratory experiments, such as

may be readily performed by any teacher in a country school, have been prepared by Mr. Crosby, United States Government expert on agricultural education. These interesting experiments may be advantageously used by the teacher as a part of the regular school work in connection with some correlated study, as geography, or they may be made the basis of special exercises adapt-

When You Have Hides, Furs, Wool, Sheep Pelts, Tallow, Etc.,
To Ship, Think of

The M. H. Redick Hide and Fur Company,
GRAND FORKS, NORTH DAKOTA.

The only resident Hide and Fur dealers in the state dealing in Hides, Furs, Wool, etc. exclusively
"Established For Nearly a Quarter of a Century." Send for Price Lists, Tags, etc. Sent Free.
When writing this firm mention that you saw their ad in The North Dakota Farmer.

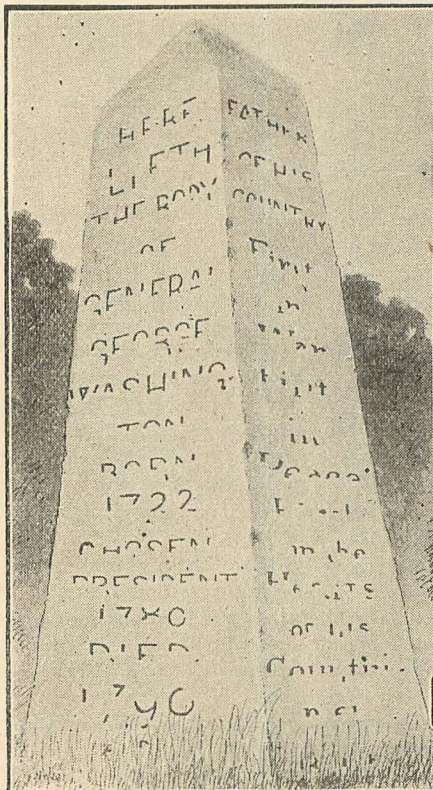
WHAT DO YOU MAKE OF THIS?

TRY YOUR SKILL AT DECIPHERING THE
INSCRIPTION.

\$200 in Prizes for Best Readings

In excavating recently at Mt. Vernon, around the old tomb of the Washington family, a roughly sculptured stone was discovered hidden by rubbish and vegetation. Owing to the soft and

CUT THIS OUT.



friable nature of this stone, the inscription on it, whatever it was, had been well-nigh effaced, but sufficient traces of the letters remained to show that with sufficient study they might in time be made out.

While the great scientists of the world are contending over the riddle it may be that there are others who have some ideas on the subject, and hence the invitation is extended to everyone— young and old, far and near—to try their hand at reading the inscription.

See if you can make out any of the letters or words; you can show the picture to your friends and have them give you suggestions. What is wanted is the best possible interpretation, and you are at liberty to get aid from any source. (On the other sides of the stone there was no inscription; all you need worry about are the traces shown on the two sides presented to view.)

For the best reading of this interesting old monument, valuable prizes are offered as follows:

A First Prize of...	\$ 30.00
A Second Prize of...	20.00
A Third Prize of...	10.00
8 Prizes of \$5 each...	40.00
100 Prizes consisting of Superb Hand-Colored Copies of Some of the World's Finest Pictures, Cheap at \$1 Each...	100.00

Making a Total of... \$200.00

The best way in sending in your answer is to make a tracing or copy of the stone, or fill in the picture, showing the inscription plainly on it just as you think it should read.

This contest, which is merely a specimen of the numerous equally interesting ones which we conduct, is designed for subscribers to the PATHFINDER exclusively. The PATHFINDER is a high-quality illustrated weekly paper, published at the Nation's Capital for the Nation. No matter what or how many other periodicals you may be taking, you want the PATHFINDER. It is "different"—a class by itself—sprightly, informing, entertaining, yet dignified and sane. It appeals to all earnest, intelligent, busy people; it is THE paper for YOU. There is no other paper that can exactly take its place. In its enlarged and improved form it is now reaching out for new readers, and if you are not already a subscriber, THIS MEANS YOU.

Send in your answer to the monument puzzle at once, including if not now a subscriber to the Pathfinder \$1 for one whole year's subscription (52 issues, or 50 cents for 26 weeks, or 25 cents for 13 weeks).

The announcement of the prizes, together with a picture of the stone with the correct reading on it, will be published in the PATHFINDER at an early date. The prizes will be awarded with the utmost possible fairness, and the decision of the editors is to be final.

We believe that there are enough smart people in this country so that among them a very close approximation of the original inscription can be secured, and to interest such people in the PATHFINDER we are willing to give out these liberal prizes. They will surely go to someone, and the best answers will earn them. Don't under any circumstances miss having the PATHFINDER this year, which comes every week, from the Nation's Capital laden with good things—welcome as a letter from your best friend. If you win a nice prize so much the better; but the PATHFINDER will be worth more to you than any prize. Address, PATHFINDER, Wash., D. C.

Pathfinder, Wash., D. C.

N. D. F. N.

Gentlemen: I enclose my reading of the Mt. Vernon monument, and \$——for which enter my subscription to the Pathfinder, for..... months.

NAME.....
CITY.....
Street.....State.....

ed to local school conditions. Mimeograph lectures, and many samples of grains and grasses are used in illustrating the work of the course."

Supt. Randlett expressed a desire to come into touch, either personally or thru correspondence, with all the teachers of the state, and in particular with those who are alive to the benefits that may be derived from such a course, both directly as a means toward securing better remuneration, and indirectly for the invaluable self-cultural benefits that make life broader and more worth the living.

Those interested in this new educational work may secure from Supt. Randlett full and detailed information regarding the nature and scope of the correspondence course by writing him at Agricultural College, N. D. It may be of passing interest to say that credits given for work done in this course may be used by the student who wishes to apply them toward the completion of a resident course at the Agricultural College.

If North Dakota is to keep up with the rest of the country in agricultural education in the common schools, let alone the leadership which the state ought to acquire, we must be up and doing. The children in the great cities of the East, like Washington and New York, are being taught agriculture. Shall the young people of the most agricultural of agricultural states grow up in ignorance of scientific agriculture?

NEW INSTITUTE DIRECTOR-- T. A. HOVERSTAD ELECTED TO SUCCEED E. E. KAUFMAN

T. A. Hoverstad is the new director of the North Dakota Farmers' Institutes. For some time he has been conductor, but the additional honors were thrust on him at the meeting of the institute board at the A. C.

This action was taken as a result of the resignation of E. E. Kaufman, who has been director for nine years and has succeeded in building up the institute work in this state to a high degree of perfection. Mr. Kaufman felt his private business required all his time, and on his presentation of his side of the case the board regretfully accepted his resignation, which became effective Oct. 1.

Mr. Hoverstad's selection is a happy one. He was connected with the Minnesota institute work for some years, when differences arose which enabled North Dakota to secure him for conductor, and now that he has been made director, he will be able to do a broader work than ever. He will make his headquarters in Fargo, and will have an office at the A. C. He will spend about eight

months of the year here, and the rest of the time on his Minnesota farm.

The board has outlined a plan for about three months' institute work, beginning Jan. 1. Then in June and July more meetings will be held. Following the Tri-State Convention in Fargo there will be several important rallies at different points in the state.

The board organized for the year by electing J. H. Shepperd, dean of the A. C., as president, and George Hollister of Fargo, as secretary. The success of past years of institute work in the state will be repeated and increased.

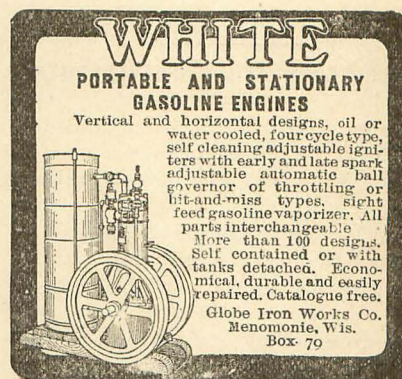
THE PRESIDENT AND LAW-BREAKERS

At the laying of the corner stone for the monument to the memory of the Mayflower Pilgrims who first landed on Cape Cod in 1620, President Roosevelt last week made an address which should be thoughtfully studied by every citizen. Its main note was the expressed purpose to continue the struggle with law breakers in this country, "to determine who shall rule, the people, thru their governmental agents, or a few ruthless, domineering men." Referring to the financial situation the President said:

There is a world-wide financial disturbance. It is felt in the bourses of Paris and Berlin, and British consols are lower, while prices of railway securities have also depreciated. On the New York Stock Exchange the disturbance has been particularly severe, most of it I believe to be due to matters not particularly confined to the United States and to matters wholly unconnected with any governmental action, but it may be well that the determination of the govern-

ment, in which, gentlemen, it will not waver, to punish certain malefactors of great wealth, has been responsible for something of the troubles, at least to the extent of having caused these men to combine to bring about as much financial stress as they possibly can in order to discredit the policy of the government, and thereby to secure a reversal of that policy so that they may enjoy the fruits of their own evil doing. That they have misled many good people into believing there should be such reversal of policy is possible. If so, I am sorry, but it will not alter my attitude. Once for all, let me say that as far as I am concerned, and for the eighteen months of my administration that remain, there will be no change in the policy we have

If you will favor us with a remittance for your subscription, either 50 cents for one year, or \$1.00 for three years, we will give you absolutely free a year's subscription to FARM & HOME, a semi-monthly farm paper of the highest grade. Do it now.



IF YOU GO TO CALIFORNIA

this winter see that your RETURN ticket reads via the

SHASTA-NORTHERN PACIFIC ROUTE

If it does you can see Northern California, Oregon, and Washington, including Portland and the Columbia River region, Puget Sound and Tacoma and Seattle, Spokane and the Inland Empire. You can also visit Victoria and Vancouver, B. C.

This is the route of the Snow-covered Mountain Peaks, visions of wondrous beauty.

For full information call on or write Local Agent.



Northern Pacific R'y.,

Send Six Cents for "Eastward Through the Storied Northwest."

A. M. CLELAND,
General Passenger Agent,
St. Paul, Minn.

Alaska-Yukon-Pacific Exposition, 1909.

steadily pursued, no letup in the effort to secure the honest observance of the law.

As to the conviction of guilty men the President said:

Many men of large wealth have been guilty of conduct which, from the moral standpoint, is criminal, and their misdeeds are to a peculiar degree reprehensible, because those committing them have no excuse of want, of poverty, of weakness and ignorance to offer as atonement. When in addition to moral responsibility these men have a legal responsibility which can be proved so as to impress a judge and jury, then the department will strain every nerve to reach them. There is unfortunately a certain number of our countrymen who seem to accept the view that unless a man can be proved guilty of some particular crime, he shall be counted as a good citizen, no matter how infamous the life he leads, no matter how pernicious his doctrines or his practices. Such a view is wicked, whether applied to capitalist or labor leader, to rich man or poor man; and all that I have said as to desirable and undesirable citizens remains true.

BACTERIA CONDITIONS FOR DEVELOPMENT

The movements of the bacteria are not unordered. They are of such a character as to bring about certain general results, some of which at least are conducive to the welfare of the organism. If a bacterium swimming in a certain direction comes against a solid object, it does not remain obstinately pressing its anterior end against the object, but moves in some other direction. If some strong chemical is diffusing in a certain region, the bacteria keep out of this region. They often collect about bubbles of air and about masses of decaying animal or plant material. Often they gather about small green plants, and in some cases a large well-defined group without evident external cause.

How are such results brought about?

The behavior of bacteria under any form of stimulation to which they may be subjected depends on the nature of the normal life processes. Bacteria that

require oxygen in their process of assimilation collect in water containing oxygen, displaying discrimination in their choice of environment when an alternative is afforded. Bacteria to which oxygen is useless or harmful avoid oxygen. Bacteria that use hydrogen sulphide in their life processes gather in that substance. Bacteria that require light for the proper performance of the assimilative process of their existence gather in light. Others do not. When one color is more favorable than others to the life processes, the bacteria gather in that color even though—strange as this may seem—they may under natural conditions have had no previous acquaintance with separated spectral colors.

Why do the bacteria choose certain conditions and reject others? This selection of the favorable conditions and rejection of the unfavorable ones presented by the movements is perhaps the fundamental point. It is often maintained that this selection is personal or conscious choice. Now, is the behavior of these lower organisms of the character which we should naturally expect and appreciate if they did have conscious states, of undifferentiated character, and acted under similar conscious states in way parallel to man? Professor Jennings is thoroly convinced, after long study of this organism, that if the amoeba were a large animal, so as to come within the every-day experience of human beings, its behavior would at once call forth the attribution to it of states of pleasure and pain, of hunger, desire and the like.

It might be inferred that such terms as pleasure and pain have only a limited meaning when applied to the lower organisms. But this is leaping at a conclusion. If words have meaning, it is

correct to say that the bacteria enjoy themselves.—Current Literature.

DAMAGED WHEAT

Prof. Ladd of the Agricultural College desires to get in communication with the farmers who have frosted wheat, the grade of which has already been determined at the elevator. He desires to secure samples for experimental work. Will farmers throughout the state, who have such wheat, write him?

He desires also to learn of wheats that have been affected by heat thus producing immature ripening; to secure some wheat grown upon a field where wheat has been grown continuously for about twenty years, and, if possible, wheat from the same community grown on new land.

He would also like to hear from farmers who have been growing good strains of macaroni wheat to be used for milling experiments.

60 YEARS' EXPERIENCE

PATENTS

TRADE MARKS
DESIGNS
COPYRIGHTS &C.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. HANDBOOK on Patents sent free. Oldest agency for securing patents. Patents taken through Munn & Co. receive special notice, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsdealers.

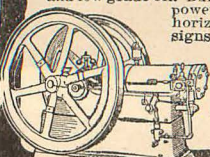
MUNN & Co. 361 Broadway, New York
Branch Office, 625 F St., Washington D. C.

WHITE

STATIONARY AND PORTABLE GASOLINE ENGINES

"THE OLD RELIABLE LINE"

Simplicity of design recommends the White. All parts interchangeable and easily adjusted. No expert's services necessary in installation or on repairs. Uses distillate and low grade oil. Built sizes 2 to 20 horse power, four cycle type, horizontal or vertical designs, for gas or gasoline. Also complete line of launch engines. Catalogue upon request.



Globe Iron Works Co.
Menominee, Wis.
Box 79

....DO IT NOW....

For a limited time we will give absolutely free a year's subscription to

FARM AND HOME

one of the oldest and most reliable farm papers published, provided this offer is mentioned when you renew your subscription to the North Dakota Farmer, sending either 50 cents for one year or \$1 for three years, back subscription or advance. Send NOW to

NORTH DAKOTA FARMER,

Lisbon, N. D.

THE MORGAN TYPE

"The Morgan type," says the American Cultivator, "has been mentioned so frequently of late that it is evidently considered of great value. It refers, of course, to the old-fashioned Morgan horses, but chiefly to the original Justin Morgan, his sons and grandsons, and their immediate descendants.

A novice is liable to get the idea that the great excellence of the Morgan family of horses was due to their conformation, shape or proportions, and that by reproducing a close image of the old-time Morgan, that is, an animal shaped after the same pattern, or run in the same mould so to speak, all will be accomplished that is desired. Practical horsemen, especially such of the old guard as have had experience with the old time Morgans, know better, however.

The conformation of the old-time Morgan was really only one of the factors that made the family famous, and was perhaps the least important of all the many factors which, combined, made him the most noble, most useful and most valuable animal of the equine species to the farmers, the business men and professional men of the day and location in which the Morgan flourished.

There may have been other horses that filled the same exact measurement, weighed the same number of pounds and ounces, were of the same color, carried their heads and tails the same as the original Justin Morgan and yet were as unlike him as to the valuable qualities which he possessed and transmitted, as the paste imitation is to the genuine diamond, or iron pyrites to pure gold dust.

It was the immense amount of nerve force which he possessed, rather than his conformation, that enabled the original Justin Morgan, founder of the Morgan family, to out-pull, out-walk, out-trot and out-run any horse in the section where he was kept.

It was the quality of his brain rather than the size and shape of his head, or the length or depth of his body, that caused Justin Morgan to cheerfully obey the commands of his riders or drivers, whether they were stalwart men, invalid women or half-grown children. It was the physical and mental qualities of this wonderful horse, rather than his size, shape, style and pose, that made his stock so immensely valuable.

When horsemen speak of the "Morgan type" they have in mind the qualities, both physical and mental, which Justin Morgan possessed and transmitted, quite as much as the size and shape of the horse, and probably far more than those.

Hart-Parr Gasoline Traction Engine

CAN USE

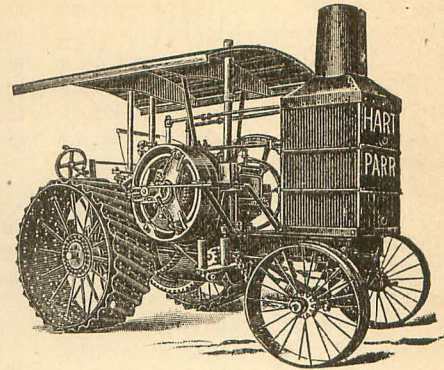
Kerosene,

Gasoline or

Alcohol

Oil Cooled.

Enclosed Construction.



An all around farm engine. The best engine manufactured for **PLOWING AND BREAKING.**

Guaranteed to pull as many plows as can be pulled by eighteen horses.

We are general agents for **HART-PARR ENGINES. RUTH FEEDERS**
Richmond Automobiles. Lambert Automobiles
MORE BROS

Wimbeldon

N. D.

Fout & Porterfield

Pharmacists.

61 BROADWAY,
FARGO, N. D.

Perfumes, Colognes, Toilet Water, White Lead, Linseed Oil, Carriage Paint, Mixed Paint, Roof Paint. Choice Cigars, Imported and Domestic. Trusses and Shoulder Braces. Varnishes, Brushes, Etc.

We Carry a Full Line of Vaccine Virus and Serums.

Anti-Diphtheritic, Anti-Streptococcus, Anti-Tetanic, Etc.

AT THE AGRICULTURAL COLLEGE.

AGRICULTURAL COLLEGE NEWS

College work at the North Dakota Agricultural College opened, Sept. 16th with an unusually large attendance in all regular departments. Besides the regular four-year students there were more teachers enrolled in the teachers' training course than ever before, and great interest is being manifested in this department. By reason of the Nelson Bill which has greatly enlarged the appropriation, this work has been extended from a two-year to a three-year course. This Congressional aid is given to fit the teachers for teaching Mechanic Arts and Agriculture in the common schools. Students and teachers finishing the three year course are given a first grade certificate, and thruout the work is made intensely practical. When these students go out to take up teaching as a vocation their pupils in the rural schools should receive great benefit as a result of the most excellent course offered at the

Agricultural College. Prof. J. G. Hal-land who has charge of this department of the work is well pleased with this year's outlook.

The Department of Biology has been greatly strengthened by the appointment of Prof. T. D. Bechwith lately with the Department of Agriculture, Washington, D. C. Prof. Bechwith has been engaged to carry on investigations along the lines of soil bacteriology, and he will also teach classes in general bacteriology.

Mr. R. M. Dolvie, B. S. graduate of the A. C. in '06, has returned from a drainage trip near the Canadian line? The federal government, as a result of a bill introduced by Congressman Stener-son of Minnesota, undertook **last summer** the drainage of the district which formerly comprised the large Red Lake Indian Reservation. This tract extends from near Thief River Falls to

Rarroad on Lake of the Woods. The work was in charge of A. F. Meade, Jr., drainage engineer of the U. S. government survey, and R. M. Dolvie was one of his party. The work undertaken was considered by the best engineers as a most difficult project because with the exception of one or two small sand ridges this land is as level as the Red River Valley, which makes it very difficult to drain. In this region beavers' dams seem to retain the water much more effectually than those constructed by the most skilled civil engineers, and in places it will be necessary to cut thru them. There is quite a large amount of timber in this section tho by far the greater part of it has been destroyed by fire.

This year's work was done preliminary to mapping the country and deciding upon size and location of ditches. It will beyond doubt require the greater part of next summer to complete the work. In making this survey it was necessary to carry all provisions, bedding, etc. on the backs of packers as it was impossible to use horses. The government considers that some of this land has great agricultural possibilities when drained. Clover grows well and will furnish abundant food for dairy cattle. Some of the finest stone creameries in Minnesota are located in the more thoroly drained sections of this reserve. If the U. S. government considers that land valuable enough to go to endless expense in draining it, there should be no end to the possibilities offered by the Red River Valley farms already in a high state of cultivation when these farms are drained. With a few more government drains North Dakota will have some of the most valuable farms in the United States as our soil in the valley of the Red is known to be excelled only by that found in the "fertile valley of the Nile."

Prof. Beckwith, who spent much time with inspection work in the field of improvement of water supplies while with the department of agriculture, Washington, D. C. is furnishing the senior class with many interesting experiments. His wide experience gives him many resources and all classes under him are highly pleased with his work.

In Prof. Minard's class in Psychology the other day the following thought from James was emphasized and expanded: "Let no youth have any anxiety about the upshot of his education whatever the line may be. If he keeps faithfully busy each hour of the working day, he may safely leave the final result to itself, he can with perfect certainty count upon waking up some fine morning, to find himself one of the competent ones of his generation, in what-

ever pursuit he may have singled out. Silently, between all the details of his business, the power of judging in all that class of matter will have built itself up within him as a possession that will never pass away. The young should know this truth in advance. Keep the faculty of effort alive in you by a little gratuitous exercise every day."

Mrs. J. C. Childs, Mayville, N. D., is visiting Mrs. J. H. Shepperd. Mrs. Childs will spend about a week in Fargo before returning home.

The introduction of a complete thermo-regulation apparatus into the plant house of the botanical department has made it possible to carry on different experiments hitherto out of the question from lack of regularity in temperatures about the greenhouse. This will also be a great saver of fuel. If the new engineering building had one of these instruments for governing the temperature, the building would be a model in every respect.

Miss Sopha I. Thomas, Elbowoods, N. D., has been visiting the Agricultural College the last few days. Miss Thomas

graduated in '04 and since that time has taken post graduate work at the institution, receiving the degree of M. A. last spring.

The class in steam engineering is working on heat determination with Carpenter's calorimeter, comparing the heating value of lignite with that of Eastern coals. Mr. Gunness, '07, has the class in steam engineering this year.

The Northwestern Live Stock Association, which is to hold its convention at St. Paul, has asked Prof. J. H. Shepperd to act as superintendent of the student's judging contest to be held in connection with their meetings. The secretary wrote saying that the association had heard of the universal satisfaction of his work in the same capacity at the International Stock Show, Chicago, and wished him to act in the capacity of superintendent at its own meeting.

The alcohol potatoes under experiment at the station have been very disappointing in that the yield has been very light. It is the impression of Prof. Shepperd that the importation of seed by the government was poor.

Shade Trees and Gardens.

C. B. Waldron, N. D. A. C., Editor.

Pres. Worst,
N. D. Agricultural College,
Fargo, N. D.

Dear Sir:-

Kindly reply by return mail and state whether the Russian mulberry tree is adapted to my locality which is near Rogers, N. D. Address Frank E. Stearns, Matteson, N. D.

Mr. Frank C. Stearns,
Matteson, N. D.

Dear Sir:-

Your letter to President Worst concerning Russian mulberry has been referred to me for reply.

This tree will live in North Dakota but it freezes back so badly in certain years that it can hardly be called a success. If it has any value at all it is for wind breaks and shelter purposes. I would much prefer the Russian golden willow for such a place or even the common gray willow as this grows more readily and affords a better shelter and in time will supply considerable fuel and also posts. In your region nothing will succeed better than the willow for this purpose. You might also plant the soft maple as that grows very rapidly and makes considerable fuel at the end of a comparatively short period. The grow-

ing scarcity of timber has set many farmers to thinking about the advisability of planting trees and it may be said at this time that the farm with ten acres of good, growing timber will be worth far more at the end of ten or fifteen years to the owner than the farm that has no timber. Ten acres planted to willow and soft maple will afford all the fuel that the farmer can possibly use for all time to come provided it is properly handled. In addition it should furnish all of the posts that a quarter section farm will need. Experiments have shown that lands planted to willows will produce at the rate of four cords per acre per year. This would mean of course that ten acres only would be producing at the rate of forty cords per annum, which would be abundant supply for any farmer. Yours very truly,

C. B. Waldron.

Webster, N. D. Oct. 28, 07.

The North Dakota Farmer,
Fargo, N. D.

Gentlemen:

Under separate cover I send you a weed. Please inform me the nature of that weed and its habits. I got it in the

alfalfa seed this spring. But the college seed is fine. I got a good stand of 35 acres. I want to seed next spring 50 more acres of alfalfa, if you could inform me where I could get perfect clean seed, as the land that I want to seed it on is perfectly clean and rich. You would do me a great favor.

Yours truly,
John Munig.

Mr. John Munig,
Webster, N. D.

Dear Sir:-

The weed sent by you to the North Dakota Farmer is the Russian cactus. This is so common thru the central and western part of the state that you need not necessarily infer that you got the seed when you purchased the alfalfa seed. The Russian cactus has a way of distributing its seed over the country for the wind blows it about. It has been growing in the different portions of Ramsey county for so long that your land has very likely become seeded in this manner. Whether this is the cause or not it can do no particular harm in the alfalfa field. If you have lived in North Dakota long enough you doubtless remember the time when people were badly frightened at the appearance of the Russian cactus. That time has gone by since it is found that with just ordinary methods of good farming the cactus does but little harm. The firm from

whom you purchased your seed are considered as careful and reliable as any seedsmen I know of and if your alfalfa, as you say, made a good stand I would not hesitate to purchase seed from the firm. I visited with a farmer in your county the other day who told me that his alfalfa cut eight tons to the acre this season. I saw the hay and tho it had been rained on to considerable extent, it was still in fine shape and stock preferred it to any of the other hay upon the farm. One of the horses has particularly formed the alfalfa habit and would not eat any other hay except thru necessity. As soon as the fact becomes established that any agricultural lands are capable of producing alfalfa even at a rate of four tons per acre their value will be somewhere in the neighborhood of \$100 per acre. This has been experienced by other communities and there is no reason why North Dakota should be the exception. Ten dollar hay in different parts of North Dakota is not an unknown thing. In fact, it is bringing that in this market now and I am informed also that that price has been paid in Devils Lake during the past year. Since alfalfa hay has a greater food value than prairie hay you can readily see that the income of \$40 or \$50 per acre from land might establish a high value for that land.

Returning to the matter of the Rus-

sian cactus in your alfalfa seed, I will say that if conditions seem to point to the fact that you got cactus with your alfalfa seed, it may be well to call the attention of the firm to this matter so that they can look out for this in the future. I will say again, however, that I would not consider the weed a bad one as it will stand but little show in a field of alfalfa.

C. B. Waldron.

Mr. Samuel W. Lyman,
McHenry, N. D.

Dear Sir:-

Replying to your letter of Oct. 25th, I will say that the plant which you enclose is not the Russian olive but so far as I can make out, appears to be the Russian Mulberry. The leaves were dried and badly broken so that I had to identify it from the twig alone but I think there is no question as to the identity. It bears no sort of resemblance to the Russian olive, the later being a tree with white woolly twigs and silvery white foliage. The Russian mulberry is little used for any purpose in North Dakota. It is of rather weak, straggling growth. The latter qualities are not such as to recommend it either for a timber tree or for a hedge. The Russian olive on the other hand is a valuable hedge plant. It will grow under very poor soil conditions and stands considerable drought. It is about the only tree that will grow freely on alkali soil. It has rather a stiff, bushy habit and its tendency to produce thorns makes it especially valuable for a hedge plant.

I do not know what you can do in the present instance but I should certainly resist paying for one thing when I had bought another. I suppose these payments have all been made. That of course puts it in the form of an executed contract and you could not recover anything except by process of law. It is possible that the firm may have made a mistake in sending out these plants in which case they would doubtless rectify it. As there is no resemblance whatever between these two plants. However, it would look upon the face as tho their action was fraudulent. Your letter is only one of many making similar complaints. Of course, it is useless to give advice at this time now that the damage has been done but if the plant had been submitted to the Experiment Station in time, you and your neighbors would have been saved this trouble and expense.

Yours very truly,

C. B. Waldron.

SEED WANTED.

We wish to buy Bromus, Timothy, Millet, Corn on Cob,
Seed Grains, Etc.

FARGO SEED HOUSE, - - - Fargo, N. D.

DON'T BE FOOLED

Into buying eastern and southern grown nursery stock that won't grow in the north.

The Hankinson Nursery Company

Sell northern grown trees and guarantee them, replacing free. Write for price list. Grounds and packing house one and one-half miles west of town. Live agents wanted.

Hankinson Nursery Company,

HANKINSON, - - - N. D.

When Ordering Any Kind of Garden or Field Seeds Write to the
"GRAND FORKS SEED CO.,"

Handlers of only Northrup, King & Co.'s Sterling Seeds. We buy Timothy, Millet, Flax, Barley, Speltz and Wheat,

North Dakota Farmer

AND SANITARY HOME.

Entered as second class matter in the postoffice at
Lisbon, North Dakota.

PUBLISHED EVERY MONTH

E. F. LADD & CO., PUBLISHERS.
Lisbon and Fargo, N. D.

EDITORIAL MANAGEMENT, FARGO, N. D.
E. F. Ladd, Editor

BUSINESS MANAGEMENT, LISBON, N. D.
W. G. Crocker, Business Manager

ASSOCIATE EDITORS

PROF. J. H. SHEPPERD, State Farm Notes.
PROF. W. B. RICHARDS, Livestock.
PROF. C. B. WALDRON, Fruits, Forestry, and
Insect Pests.

TERMS: One Year, 50 cents.

Remittances should be made by Draft, Post-office Order or Express Order.

Discontinuances. The magazine is sent until notice to discontinue is received, together with payment for all arrearages.

All Articles and Editorial Matter should be addressed to E. F. Ladd, Fargo, N. D.

Address all business correspondence to the Lisbon office.

Vol. 9 NOVEMBER, 1907. No. 5

The farmer with a field of potatoes yielding this year 300 bushels per acre has a good income ensured. The greatest money is not in wheat but rather in produce crop. When will our North Dakota farmers learn this lesson.

Hens are supporting many a family, paying all the grocery bill on the farm. Eggs, 30 cents per dozen and even farmers buying on large farms. The wasted products about the house and barn would support a good flock of hens and turkeys. Why do we continue to neglect our main chance for profit.

Booker T. Washington has become a colonizer, having purchased 18,000 acres in Alabama from the Corner plantation for which he paid \$162,000. This land is under a high state of cultivation and is to be sold to negroes. This is a move in the right direction and the experiment will be watched with great interest.

The wheat crop for the United States is now being estimated for 1907 at 603,473,000 bushels as compared with 776,363,000 bushels for 1906. This of itself is sufficient to account for higher prices and the fact the crop of 1906 was hardly enough to meet demands and clearly indicates good prices for the coming year.

The oat crop for 1906 was 930,827,000 bushels in the United States while for 1907 it is reported as only 659,596,000 bushels. A heavy reduction in produc-

tion. Barley on the other hand is a fair average crop but the price is unusually high, owing it is said in part to the Pure Food Laws since barley is now more largely used in beer making where much glucose was formerly employed.

One cries that a man working a 160-acre farm with stock has no leisure. That is just it. You had rather be a gambler and take chances on the wheat market and in the end fail, than to have a continuous, steady income and work the year round as do laboring men, business men and all those on salary. The writer has had no real vacation for five years and is none the worse for it. He has worked evenings and Sundays and he could have done no more on a farm. Besides a farmer is no man's slave. My boy, be content on the farm, but be progressive, wide awake and in the front rank.

Help is scarce and not reliable, says one farmer. Well, a man on a 160 acre-farm needs but little help to put in and care for 40 acres wheat, 20 of barley, 20 of oats, 20 of corn, 10 of potatoes, 10 for roots, fruits and groundclover 20 acres and 20 acres of pasture land. Butter 25 cents the year round means a good profit for a few cows on such a farm, three breeding sows means at least 15 pigs, 200 pounds each to sell in the fall, grown on skim milk, small potatoes, pumpkins and grain, a bunch of hens and turkeys for the family care and a few fat steers, and you are busy the year round, a continuous income and no hard times.

Times are changing. Back to the farm seems the trend at the present time and not so much cityward as a few years ago. Prices for farm products are bound to be good for some time for the supply does not begin to equal the demand. Our demand for food supplies are growing faster than is the natural increase in supply and we can not expect to see low prices prevail and farmers who are industrious and saving can not do otherwise than save money, while the clerk in town must feel more and more the strain and will find it not easy to meet his obligations. Think twice young man before risking life in the city behind a counter and at night tucked away in some tenement or undesirable quarters.

Have you planned to attend a farmers' institute this winter, or are you to have one in your part of the country. If not you are not as progressive or ambitious as you should be. The farmers' institute ought to be the great leavening agent to start new ideas, new methods of farming, to stimulate you to something better for another year.

Here you can compare notes with your brother farmer, avoid his mistakes of the past and profit by his successes. Every profession, every industry, every organization of labor come together for mutual benefit. Can you not find profit in spending two days at an institute? If not you are a back number and must soon give place to something better. If the institute is not run right that is your fault. Get out in line to benefit the community.

Why should poultry and eggs be put in cold storage and when they are fast approaching the putrescent stage be brought forth and sold a fresh product with that being produced by the farmer at great expense under favorable conditions for a good article. From a third to one-half of the eggs retailed during the winter, in our larger towns are unfit for food. It is said that fish which have been in cold storage for two years are now being sold as fresh from the lake. Is it safe to eat partially decomposed animal food?

GOOD SEED WANTED

There has been an unusual inquiry from readers thruout the state as to where grass seed of good quality, especially timothy seed, blue-grass seed, medium red-clover seed and alsike clover seed could be had. Would it not be well for readers of the North Dakota Farmer, who have a quantity of such seed, to have the same tested as to its germinating power and then advertise to the public the fact that they have seed of good quality which they can guarantee? Such seed would bring a good price, and the farmers would be benefited by being able to secure high grade seed grown in the state.

ANTI-FREEZING MIXTURE

Several correspondents ask what they shall use in place of water or added to water to keep it from freezing in the automobiles. The following has been, it is said, recommended by Henry Souther, an engineer of Hartford, Conn. and found to give satisfaction:

Mixture for 10 to 20 degrees below zero.

Wood alcohol	50 per cent
Glycerine	25 per cent
Water	25 per cent

As the weather moderates toward spring additional water should be added from time to time.

WEEDS IN STOCK FEED

A recent bulletin published by the Vermont Experiment Station indicates that some of the stock feeds on the market contain a large amount of weed seed and that the weed seeds in such feeds is

still in condition to grow. This was particularly true of a class of feeds known as molasses feeds wherein it was found by their calculations that the buyer of one ton of these molasses feeds purchased therein three weed seeds for every square foot of a one-hundred acre farm. That is, in each ton of such feed there were found 129,000,000 weed seed, which were bought and paid for by the farmer.

Now, in as much as these weed seeds are not destroyed by the horses or cattle, they remain as a means of disseminating all classes of weeds thruout the country. The principle weed seeds found were green fox-tail, wild turnip, black mustard, pigweed, shepherd's purse, witch grass, smart-weed, kale and wild buck-wheat.

TREES MOST PROFITABLE CROP

Over twenty years ago the late Mr. T. T. Eastgate planted a few acres to trees on his farm near Larimore. Just common sorts mostly cottonwoods were used. They were not given any exceptional care. Twenty-one years from the time the young trees were planted a forest expert from the Department of Forestry cut several trees and after careful measurements and calculations found the growth to have average 4.71 cords per acre for each year they had occupied the soil.

Wood of this kind sells in Larimore for more than \$7 per cord which gives an average increase per acre of more than \$33 for each year. Much of the timber was of sufficient size to saw into lumber and for use as building material which is much more valuable than wood. Mr. Eastgate in speaking of his experience said, "It is the most profitable crop I ever grew."

STOCK FOODS

In this issue we republish an article from the Orange Judd Farmer from the pen of Prof. Thos. Shaw defending the use of condimental foods. There is no questions as to the value under certain conditions of the various stock foods, but it seems to the writer that Prof. Shaw has gone out of his way to attack Station workers, for either he misunderstands the statements made by the Station workers, as far as the writer is familiar with them, or he is not wholly familiar with their statements.

That there is not a legitimate place for condimental foods no Station worker, who has investigated this subject, has, I believe, contended. He has, however, condemned the general use of such products as unnecessary, except when animals are in need of a tonic, and then he has maintained that these same tonics can be had for much less cost, or he has further stated that it would be

better economy to secure the services of a good veterinary and let the animals have proper treatment than to pay from \$500 to \$1200 per ton for products which can be easily prepared for one-tenth the price.

Bitters and tonics have, no doubt, served useful purposes as appetizers for man in a run-down condition; so like tonics and appetizers will serve a useful place in animal economy in times of need, but to say, as is claimed by many many manufacturers of these products, that it is wise to feed daily a small quantity of these so-called tonics, or condimental foods, is like advising a healthy man to continually take some kind of dope, patent medicine or bitters, to keep his system in normal condition, when every intelligent man knows that it does not do this and only makes the system less responsive to medicines in time of need. Truthful statements, not misleading statements are what we need.

UNIFORMITY OF STATE LAWS

From the standpoint of the manufacturer it is very desirable that there be, as far as possible, uniformity of state laws and, more particularly, uniformity of ruling as far as possible under the several state laws. The condition at the present time, however, is not as bad as might seem from the claims of the manufacturers. In the majority of cases the manufacturer, if he desire to do so, can prepare a label which would meet the requirements in the majority of the states under existing laws. Some of the manufacturers have not been willing to do this believing that there was sufficient advantage to be gained by using separate labels, and taking advantage of any weakness in the law or ruling under the law which would enable him to, in a measure, deceive the public. Other manufacturers have not taken the trouble to make a study of the requirements under the several laws so that they could prepare such labels. For example: North Dakota requires the net weight to be shown on each and every package. Minnesota, I believe, does not make such requirement, but Minnesota would not object, I am very certain, should the label show this fact. But often the manufacturer prefers to use two sets of labels; the one with the net weight for North Dakota, and the other without for Minnesota. The reason would seem to be self-evident.

The first attempt has been made, however, to harmonize laws and rulings in the northwestern and middle west states, and it is believed that much good will result from such action on the part of the Food Commissioners. The people are entitled to protection; they are entitled to the fullest information with regard to the character of the product,

which is offered them, even to its composition, if need be, and as to the amount which is furnished in the package or container. All our laws should be brought to this stand; then the rulings can be harmonized, and the manufacturers and jobbers, who desire to do so, would have no difficulty in preparing labels which would meet the requirements in all states.

So long as the manufacturers try to avoid giving the full information to the public, so long it will be necessary to demand new laws, to make new interpretations under the old laws. But I am sure that the food commissioners are willing to accept the labels which will truthfully set forth the facts, but, of course, they can only go so far as the laws they have on their statute books and not, as some have seemed to think, prepare laws in the office of the food commissioner. The food commissioner must interpret the law as he finds it; he must then demand such forms of able him to enforce when he comes into court. The manufacturer, however, has no such obstacle to overcome. He can at once put the honest label on his goods, and thus avoid any necessity for law, but this he is not willing to do until he is forced to that condition.

While the laws of Minnesota, Wisconsin, Illinois, Iowa, North and South Dakota have points of differences, it was not found impossible, on the part of the food commissioners, of the several states, to so harmonize their rulings as to enable them to prepare labels which would be acceptable and, if used on products, the sale of such products would not be contested in any of the states named. Another conference would, I am certain, enable them to go much farther than was done in the limited time at the previous conference, and labels could be prepared for canned goods, for syrups and for meats, which would be entirely acceptable under the laws of the several states. If the manufacturers interested accept the form of labels prepared at the recent conference of food commissioners in St. Paul, there is little question but what the commissioners will be glad to undertake the harmonizing of rulings and the preparation of labels for these other products. The work, once undertaken in this direction, I am sure will be continued until for the whole United States there will be uniformity in the great mass of food products. On the other hand, local problems will make necessary certain differences in laws; and existing evils in one locality will force the commissioners to take action not necessary in other parts of the country.

But, on the whole, I see for the future bright prospects of stringent food laws alike in benefit to the honest manufacturer and the consuming public.

Pure Food Department.

All Matters Pertaining to Foods will be Discussed in this Department

Says Commissioner Fourn of Pennsylvania: "It makes one feel unhappy when one notices that a dealer or a manufacturer is sour about an act of the legislature which seeks simply the protection of the health of the people and to guard them against deception. These objects are both extremely commendable and ought to receive general support and obedience. Obedience to law is occasionally a little inconvenient, but it's a great conscience tranquilizer. Beside that, it has brought more than one manufacturer or vender independent fortune. A man's good name is worth a large sum after he has acquired it by careful and upright action. Integrity is a business asset of great worth."

It is said that last March a single large manufacturing establishment purchased thru one broker eleven car loads of spoiled, decomposed eggs unfit for human food. They sell only fresh prepared food. How can they make fresh food out of spoiled eggs? If such eggs have ptomaines formed in them by that process can they be removed? They may deodorize the eggs, but have they taken away the poison, or by treatment have they made them less dangerous to the health? Our food laws do not go far enough, they should reach out and inspect the sanitary conditions of places where food is prepared and see that bad material is not used in its production. How would it do to force the makers to label the products something like this, deodorized rotten eggs used in this pie, cake, biscuit, etc., or for glazing this coffee, etc.?

At the beginning of the nineteenth century the death rate in Paris was 32, and its decline was slow until about 1885, when more attention began to be paid to direct experimentation and research and the application of scientific principles to personal hygiene and public sanitation. The greatest triumph of the new methods has been in the care of children. In the last fifty years the death rate of children under five has fallen from 158 to 55 per thousand living. For children between five and ten it has fallen from 13 to 5, and for those between 10 and 14, from 7 to 3. Next to children's diseases, the greatest progress has been made in the prevention and treatment of typhoid fever, diphtheria, and diseases of the respiratory organs. No wonder that when the *French people were* recently called upon by a popular journal to vote for the

greatest man their country had produced they placed Pasteur, to whom we owe the beginnings of our knowledge of bacteriology, far ahead of Napoleon and Hugo.—The Independent.

NET WEIGHT

There is one feature in the food law of North Dakota recently put into force which has caused considerable criticism not only from packers of canned goods but from manufacturers of various other food products, and that is with regard to requiring the net weight of the contents to be put upon each and every package offered for sale in the state. The clause reads as follows: "If every package, bottle or container does not bear the true net weight, the name of the real manufacturer or jobber, the true grade or class of the product, the same to be

expressed in clear and distinct English words in black type on a white background." From every quarter there has gone up a cry that this provision provides no protection to any one, and above all the packer of canned goods

If you will favor us with a remittance for your subscription, either 50 cents for one year, or \$1.00 for three years, we will give you absolutely free a year's subscription to FARM & HOME, a semi-monthly farm paper of the highest grade. Do it now.

OUR FLOURS

ARE

Absolutely Pure and Wholesome

Ask Your Dealer For Either

"DIAMOND,"

"OCCIDENT"

or **"BELLE,"**

Mills at Valley City, Jamestown, Grand Forks, Minot. Daily Capacity, 3500 Barrels.

Russell-Miller Milling Company.

60
CUPS FOR
-15 CENTS-



MEAD'S CEREAL BLEND

LOOKS LIKE COFFEE } BUT
TASTES LIKE COFFEE } IS NOT
SMELLS LIKE COFFEE } COFFEE.

Is a Scientific blend of the Choicest Rye Wheat and Barley Grown, no hulls, chicory or dope in it. Aids digestion and cures dyspepsia. Costs $\frac{1}{2}$ less than Mocha & Java—is 20 times better. A pound package post paid on receipt of 25 cents. Write for our three special offers. Ask your grocer for it first.

MINNEAPOLIS CEREAL CO.,

Coffee Dept.

Agents wanted everywhere.

Minneapolis, Minn.
U. S. SERIAL 712

The Name

"Nokomis"

On the label of any food product is an absolute

Pure Food Guarantee

And it is also a guarantee that the product bearing the label has reached the highest degree of excellence in flavor and wholesomeness that it has been possible so far for any food product to reach.

If your dealer does not handle Nokomis Canned Goods and Nokomis Coffee, send us his name and address and we will undertake to see that you are supplied.

STONE-ORDEAN-WELLS COMPANY,

Duluth, Minn.

Pure Food Advertisers

The products advertised below are in compliance with the pure food law of North Dakota and of the highest grade.
ASK YOUR GROCER FOR THEM.

"BUY"

"EAT"

HOME BRAND

Pure Food Products

"ECONOMY" "SATISFACTION"

Griggs, Cooper & Co.

MANUFACTURING
WHOLESALE
GROCERS,

ST. PAUL, MINN.

Main Offices:
CORNER THIRD AND BROADWAY

GRAND PRIZE

(The highest honor)

Awarded to

DR. PRICE'S
DELICIOUS
Flavoring
Extracts

At the

ST. LOUIS
EXPOSITION.

For sale by all representative grocers.

MARQUETTE BRAND

Honest Value

At Honest Price

MARQUETTE

CANNED GOODS,
MAPLE SYRUP,
SPICES AND EXTRACTS,
COFFEE.

PARK, GRANT & MORRIS,
Fargo, N. D.

PARK, GRANT & MORRIS GROCERY CO.,
Grand Forks, N. D.

WHOLESALE DISTRIBUTORS.

RETAILERS PROTECTED

The National Food Law did not take effect until January 1st, 1907; and all goods on hand or receive by you prior to that time, are not affected in any manner by the National Food Law, and will not be, unless shipped from one state into another after the law goes into effect January 1st, 1907.

For your protection, it is necessary that you handle only pure goods, properly labeled within the meaning of this law and we, therefore, call your attention to the fact that food products sold to you by us are not adulterated or misbranded and are all guaranteed to conform to the requirements of all food laws, both State and National. This guarantee protects you from prosecutions under the National Food Law on any food products purchased from us hereafter.

REID, MURDOCH & Co.,

Chicago.

Libby's

Food
Products

Canned Meats Pickles Olives
Preserves etc.

Libby, McNeill & Libby.

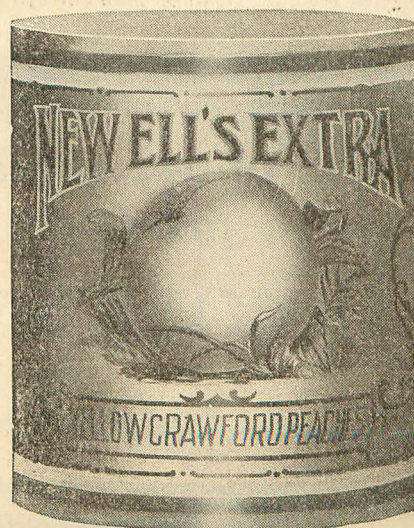
NEWELL'S EXTRA LINE

Represents the highest quality of food products that can possibly be obtained. Purity and quantity always stand foremost.

Geo. R. Newell & Co.,

WHOLESALE GROCERS,

MINNEAPOLIS, - - - MINN.



should not be required to show the net weight.

The packers of canned goods have not only protested against the enforcement of this clause, but have passed resolutions at their various meetings calling upon their fellow packers to refuse to fill orders in states where this requirement is in force. What can be the reason for this? Are the cans always uniform in weight and, if so, why does the canner object to incorporating in the label the actual net weight and the true grade or class of the product? It would seem to me as tho there must be some good reason on the part of the packers for opposing such a provision, and that good reason must be that not always have they packed goods of full net weight or measure, and they have not always shown on their labels the true grade or class of the product.

Packages of crackers assumed to weigh one pound are found to contain from 8 to 12 ounces, the balance being card board and other fillers and make weights. This is wrong. The cost of living is high enough without introducing any further fraud. Says Commissioner Slater of Minnesota, the greatest evil we now have to contend with is short weight and measures. North Dakota is beginning to reap the benefit of her law requiring net weights to be shown.

ADULTERATED WHISKEY

North Dakota Druggists will be interested to learn what Dr. Wiley, has to say about the whiskey conditions under that pure food laws. The public who need whiskey in times of sickness will also be interested. Dr. Wiley says:

"It is a remarkable fact, that of all manufacturers who are affected by the law only those making whisky have shown a disposition to evade or dodge the provisions of the act as interpreted by the Attorney General. Packers of all sorts of canned goods, salmon, sar-

dines, vegetables and fruits came around to the law without the slightest trouble, and this in spite of the fact that hundreds of dollars' worth of labels had to be destroyed. The manufacturers of whisky, however, especially those known as rectifiers, are endeavoring to do everything in their power to nullify the act. Many of them—yes, the great majority of them—have absolutely refused to place the proper words on the bottles which they sell. The reason for it? Why, the reason for it is that they are afraid to let the public know how little whisky and how much pure alcohol with some little coloring matter is sold under the name of whisky. Of course, this office has nothing to do with the prosecution of violators of this or any other law; we gather the evidence and the Attorney General does the rest, and the Attorney General undoubtedly will proceed immediately against every whisky man in the country who persists in selling compounds of alcohol, coloring matter and flavoring under the name of whisky. This law now on the statute-books is for the protection of the public against fraud. It will be rigidly enforced, and everyone who violates it will have to suffer the consequences. I am confident, if the rectifiers persist in their antagonism to the law, that when the first cases are brought the public will rise in arms against these whisky men. The

law in itself is an excellent one, and no man doing a legitimate business need fear its enforcement, but he who attempts to palm off upon his customers a compound of ethyl alcohol and flavoring extract as whisky will do so at his peril. The public has a right to know what it obtains for its money, and we propose that it shall have that information."

WE MAKE CANDIES

Of Merit and Quality.
CONGRESS CANDY CO.,

GRAND FORKS, N. D.

WRITE FOR OUR

Pure Food Grocery Catalog.

FARMERS' SUPPLY HOUSE,

Fargo, - - - North Dakota

"Everhart's

Candies are

PURE."

HONEY

FINEST QUALITY CLOVER HONEY.

In 30-lb. cans, one can 10 cts. per lb; 2 or more cans 9½ cts. per lb; 12-lb cans, in cases of 72 bs. 9½ cts. per lb. Amber Honey and Buckwheat Honey, ½ cent per lb. less than Clover. Address, M. V. FACEY, PRESTON, FILLMORE CO., MINN.

YERXA
FARGO, N. D.

"The Cash Grocer"

We buy in large quantities, for cash only, for our various stores and can save you money.

Big Store

Big Stock

Big Sales

Small Profits

Cash

The time-tested top notch **QUALITY** of all **Armour** products is represented by

ARMOUR'S

TRADE *Veribest* MARK

MEATS.

Packed in Air-Tight Tins.

"U. S. Inspected" purity plus **ARMOUR** quality.

CHEMICALS IN OUR FOOD

Of late a great deal has been said in regard to the presence of chemicals in bleached flour. The manufacturers claim that no harm can come because there is not enough to produce any injury. A recent bulletin from Nebraska states: "The use of nitrogen peroxide in the quantities employed - - - is without adding any substance in sufficient quantities to be injurious." It is not claimed that the substance is not deleterious, but, rather, that it does not occur in sufficient quantity to harm a person.

Let us assume that the producer of canned goods, meats, sausages, beverages, etc., should all conclude that nitrogen peroxide was a good thing to be added to these various products. Could we then say that not enough was taken to be injurious?

A few years ago the advocates of saccharin (coal tar sugar) each brought forth evidence that he was not using enough in his particular food to produce any injury, and yet, investigation showed that saccharin was in the corn, in the peas, in the cakes, pies and buns, in preserves, jellies, and jams, in cider and scores of other products. The users of this product fought just as desperately to permit them to continue it. Why should the producers have monopoly in the use of nitrogen peroxide in their products. Common sense warns us that we have no right to tamper with the food product.

Drs. Mathews and McGuigan showed that saccharin was a dangerous product, and this after North Dakota and several other states had prohibited its use in foods. They demonstrated that it retarded digestion, that it produced stupor, that it was a protoplasmic poison, that its presence in cakes, pies, to such extent probably accounts for the headache so prevalent. The same claim was made for the use of salicylic acid and for the use of formaldehyde. The meat packers and their allies are claiming that borax is perfectly harmless in the quantity used in the meat, but the public do not believe it, and the food authorities do not sanction its use.

Dr. Chas. Whalen, formerly City Health Officer of Chicago, in speaking of the danger of the use of such chemi-

FARGO MILLING CO.

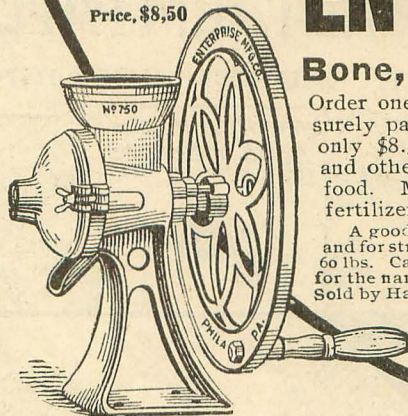
Fargo, N. D.

Pays the highest market
price for wheat.

More Eggs— More Money

The increased production of eggs from a very small flock of poultry will soon pay for an Enterprise Bone, Shell and Corn Mill. Cracked corn, ground bone, oyster and other shells, etc., are important items of egg-making material and *must* be furnished in winter to secure an abundance of high-priced eggs. They *can* be furnished at lowest cost by the use of an

No. 750
Price, \$8.50



ENTERPRISE

Bone, Shell and Corn Mill

Order one early in the season, and the hens will surely pay for it. The mill shown in cut costs only \$8.50. Will grind corn, *dry* bones, oyster and other shells, etc., making valuable poultry food. May be used for making bone meal fertilizer.

A good all-round mill for farmers and poultrymen, and for strength and durability is unexcelled. Weight 60 lbs. Capacity, $1\frac{1}{4}$ bushels of corn per hour. Look for the name "Enterprise" on the machine you buy. Sold by Hardware and General Stores, etc.

THE ENTERPRISE MFG. CO. OF PA.,
249 Dauphin St.,
Philadelphia, Pa.

als in food products and the claim that they were harmless, has the following to say:

"In answer to this statement, I can say that such a substance in itself might not be deemed injurious in the dose mentioned, but its long continued use might so overwork some excretory

organ as to produce premature exhaustion and disease."

Here you have it in a nutshell. Perhaps, one or two generations hence we shall feel the effects of the use of chemicals in flour. Shall we tolerate it and take our chances, especially since this is not a necessary adjunct to milling?

Home Affairs

Katherine C. Neilson, Editor

NOVEMBER

The Indian legends called it the Moon of Snow-shoes. It is the Puritan's month of Thanksgiving and now a national feast-day and giving of thanks for the cycle of the harvest, the returns of toil for every living creature. Why shouldn't everything be thankful?

The first harvest of our forefathers was the most grateful abundance ever displayed on this continent and the most thankfully accepted with prayers. The eleventh month of the year filled with hopes, fears, expectations and thanks for the great abundance set before the colony of brave men and women and their families, for which they had toiled and prayed. In its memory, we of a new country can do likewise and be thankful.

My first remembrance of a New England Thanksgiving dinner fifty years ago, was prepared in a family di-

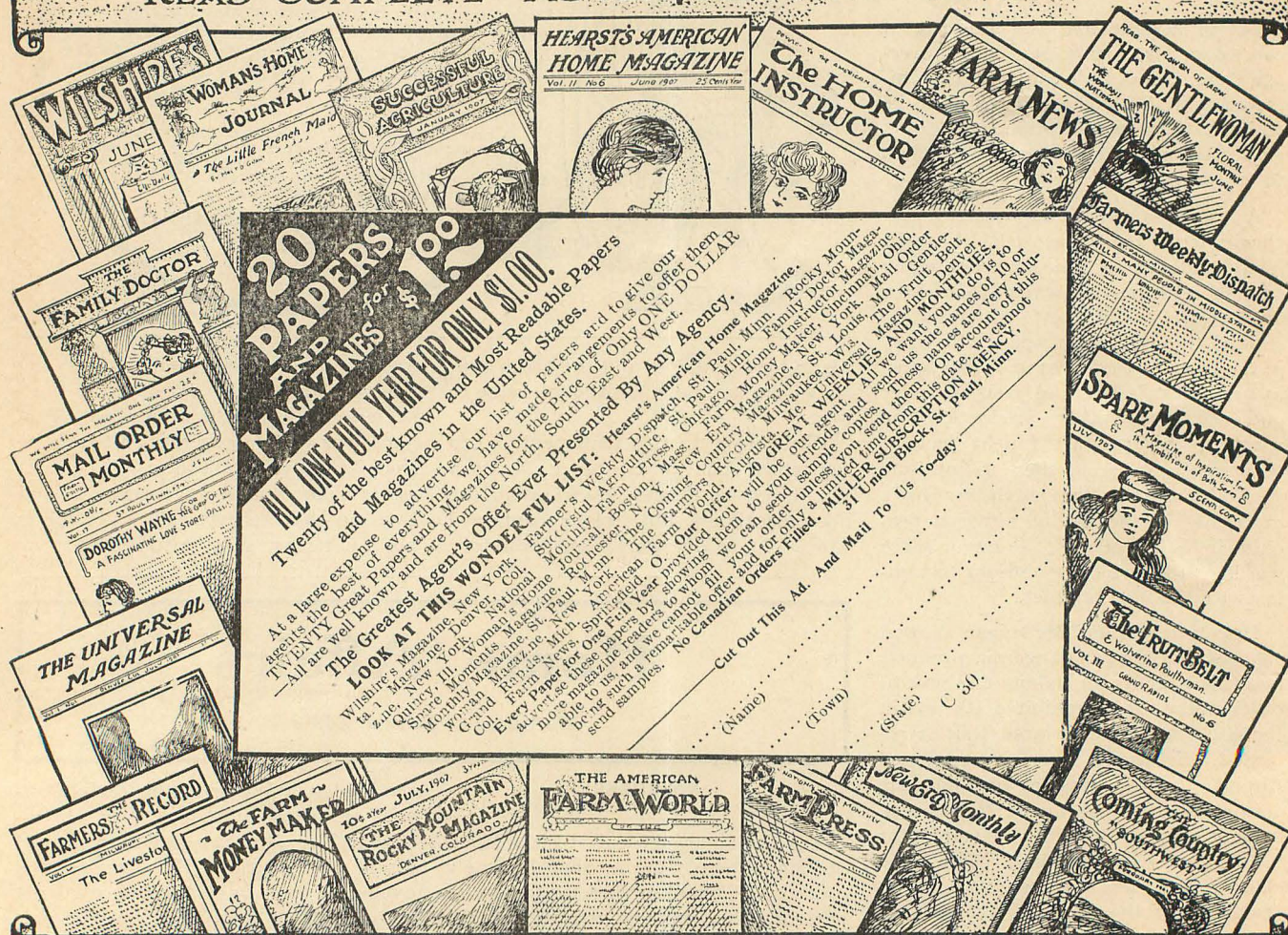
rectly descended from the early Puritans on the mountains of New Hampshire. The old house was painted red inside and outside. The large brick oven the previous day was heated red with fagots of wood, blazing red coals were shoveled back with a long-handled shovel especially for the oven, the hot bricks were brushed of ashes and the bread, cakes and pastry baked to a turn, then removed with the same awkward shovel.

On the eventful day the favorite turkey, all trimmed for a feast, and a fresh-pork ham, scored and stuck with whole cloves at every section, accompanied the fowl into that huge hot cave and when browned richly and drawn forth for the Thanksgiving feast it was a sight for children, who clapped their hands to catch the wreathes of fragrant smoke from Cousin Dolly's Thanksgiving Dinner. Her demure and sober face did break a smile for once, at the

YOU GET THEM ALL FOR ONE YEAR..

WELL KNOWN
20 MAGAZINES \$1.00
AND FARM PAPERS

READ COMPLETE ADVERTISEMENT BELOW.

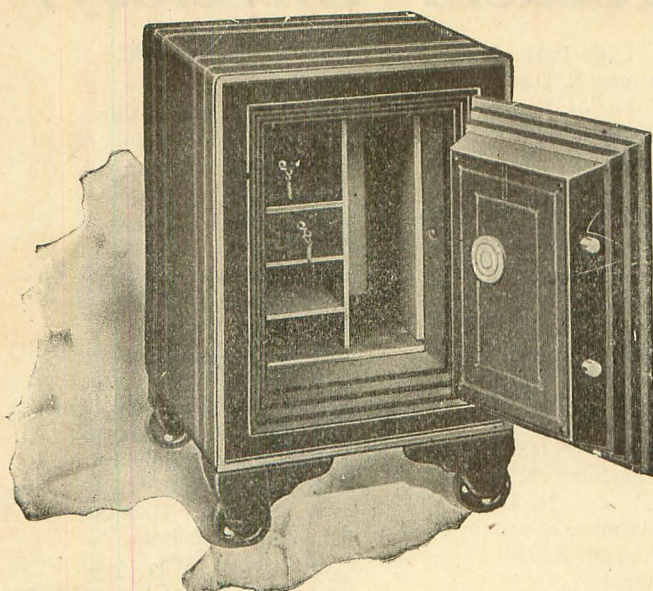


TO OUR READERS:

This is the greatest agent's offer of the year. Twenty of the best magazines and farm papers in the United States for \$1. We have never seen a better list of papers for so little money. Any one can be our agent. All you need to do is to show them to your friends.

We Advise Every Reader To Accept This Offer. Cut Out The Coupon and Mail To-day: Be sure and send the names of ten or more magazine readers and say you will advertise these papers by showing them to your friends if you wish your order filled promptly. This offer is limited, and after the required number of advertising agents have been secured no more orders will be filled. Send your order to-day. If you delay you may lose this grand opportunity.

MILLER SUBSCRIPTION AGENCY, 31 Union Block, St. Paul, Minn.



A Safe Proposition

OUTSIDE

High—28½

Wide—17

Deep—18½

INSIDE

High—15

Wide—10¼

Deep—11

We have bought a large number of these safes to advertise our Insurance Business and will sell them for **-35.00** as long as they last, and **WE WILL PAY** the FREIGHT to your railway station.

The safes are fire proof and just what you need for your valuable papers. At this price, you would have to send the money with your order, but the money would be refunded if the safe was not as represented.

We can refer you to the First National Bank of Fargo, and Union National Bank of Grand Forks as to our responsible.

SEND
YOUR ORDER
TO

The Hatcher Brothers Corporation,

FARGO OR
GRAND FORKS,
N. D.

mirth of children for she was remembered as a tall, spare matron—with soft black lustrous hair, looped over the ears and never a hair out of line, or cap a-wry.

The big plum pudding was made of rice, raisins and eggs, with its syrup turned to nectar, amber in color, oozing over your plate. Mince pies, squash pies, apple pies and pies, pies; jellies like amber and claret; whole ripe tomatoes, pickles stuck full of cloves, spiced-fruits. Real apple juice cider from the hillside orchard baldwins, pumpkin and pound-sweet apples rolled over the pan's brim as the merry children returned from the evening stroll in the cellar. These greedy mouths are watering

For the fruit within the basket;
And, although they will not ask it,
Their jack-knives all are burning
And their eager hands are yearning
For the peeling and the quartering."
—Bitter-Sweet*

The feast was no formal gathering with foreign dainties, it reached far into the evening with open-fires, beach-nuts, butter-nuts and pop-corn for children, but the lost taste this child could not forget after a lapse of fifty years.

The stomachs of Puritan children were vigilantly watched and did not for health's sake get a taste of all the viands their eyes beheld. I resolved

then, that Thanksgiving must be for aunts, uncles, fathers, mothers and ministers, that I would some day cook a dinner like Cousin Dolly's and every child should have a taste of all before them and never have I denied them that right.

*For a literary entertainment on Thanksgiving, please turn to the old poem "Bitter-Sweet" by J. G. Holland. The cellar dialog will make your mouth water for "sixteen barrels in a row."

Rice Pudding

One teacup of rice boiled in two of water. When it has absorbed the water, add a quart of milk and place over hot water; cook until the rice is soft. Then add six eggs, yolks and whites separated; beat the yolks with a large cup of sugar, salt and a generous lump of butter, flavor with nutmeg, plenty of raisins beat this into the rice and bake in a deep dish which has been covered with sugar syrup inside in place of butter. Place the pudding dish in a pan of hot water and put into the oven and cover. Cook until the middle is not milky, not too fast or it might separate and be watery.

When done whip the whites to a stiff froth, add two large spoons of sugar—flavor with lemon, lay over the pudding in folds like a turban and brown the top.

(Cooking in a pan of water avoids burning and steaming in the oven after this manner cooks top and bottom; is safer than on top of the stove. A discovery made after having careless help ruin steamers and puddings).

Dressing for fowls is made very light without eggs by taking the mixture and placing in a hot frying pan with plenty of drippings, stirring well until cooked, then fill the fowl.

Cranberry Sauce is improved by slicing in an apple to every pint of berries and stewing quickly.

For a table center piece, cut a pumpkin in the shape of a basket, leave on a handle, scoop out the inside and fill with fruit, let grapes hang over the edge.

Old-Fashioned Pumpkin Pie

1 cup of pumpkin, (previously cooked and strained or canned pumpkin.)
1 tablespoon of flour.
½ cup of sugar.
2 tablespoons molasses.
1 teaspoon of ginger.
1 teaspoon of cinnamon.

Nearly one and one-half pints of rich milk and salt, mix this with the pumpkin and fill a deep pie-plate previously lined with pie crust. For a more elaborate dessert, whip thick cream, season with cinnamon or nutmeg and cover the pie.

Northwestern Breeders' Directory.

HORSES

McLaughlin Brothers, St. Paul, Minn.,
Importers of Percheron and French
Coach Stallions.

Percheron

T. H. Canfield, Lake Park, Minn.
Stern Brothers, Fargo, N. D.
Crandal & Danforth, Randolph, Minn.
James Austin, Hannah, N. D.
Champlin Brothers, Clinton, Iowa.
W. G. Clark, Gladstone, N. D.
Jesse Sullivan, Lisbon, N. D.
O. O. Ellison, (Sons) LaMoure, N. D.
White Bros., Valley City, N. D.
H. G. McMillan, Rock Rapids, Iowa.
A. H. Brett, Mason City, Iowa.
F. G. Wentworth, Lake City, Minn.
Donald Campbell, Hannaford, N. D.
J. A. Englund, Kenmare, N. D.

Clydesdale

Donald Campbell, Hannaford, N. D.
McLay Brothers, Janesville, Wis.
Alex Galbraith & Son, Janesville, Wis.
John Hay, Hannah, N. D.
George Lang, Mapleton, Minn.
A. J. McInnes, Dazey, N. D.
W. T. McConnell, Hannah, N. D.

Belgians

Dunham & Fletcher, Wayne, Ill.
Singmaster Brothers, Keota, Iowa.
J. Crouch & Sons, LaFayette, Ind.
Robert Burgess & Son, Wenona, Ill.
Oltmanns Brothers, Watseka, Ill.
J. W. & F. L. Peterson, Litchfield, Minn.
Barnes & Shaffer, Wahpeton, N. D.

CATTLE

Shorthorn

James Austin, Hannah, N. D.
W. W. Brown, Amenia, N. D.
Winn Brothers, Redwood Falls, Minn.
Sanders Brothers, Farmington, Minn.
E. C. Butler, Cooperstown, N. D.
J. W. Crawford, Wahpeton, N. D.
F. W. Harding, Waukesha, Wis.
F. J. Dickerson, Medford, N. D.
James O'Hara, Lanesboro, Minn.
D. J. McLean, Cokato, Minn.
John Donnelly, Grafton, N. D.
N. P. Clarke, St. Cloud, Minn.
S. Fletcher, Matteson, N. D.
A. C. Gallup, Fairmount, N. D.
Frank Hammond, Bismarck, N. D.
S. G. Eliason, Montevideo, Minn.
Thomas Hecker, Carrington, N. D.
H. A. Nelson, Ray, N. D.
M. D. Kiser, Rogers, N. D.
Wm. Laplant, Jessie, N. D.
Stern Brothers, Fargo, N. D.
C. H. Ferrier, Dover, Minn.
Andrew Laughlin, Lisbon, N. D.
J. S. Anderson, Atwater, Minn.
D. W. McCanna, Cando, N. D.
A. K. DeJong, Marion Junction, S. D.
Barnes & Shaffer, Wahpeton, N. D.

T. H. Canfield, Lake Park, Minn.
J. S. Peterson, Crete, N. D.
J. B. Powers, Power, N. D.
Luke Stannard, Taylor's Falls, Minn.
H. A. Strutz, Holmes, N. D.
W. J. Turnbull, Harwood, N. D.
Finlay McMartin Claremont, Minn.
John B. Armstrong, Hannaford, N. D.

Hereford

J. H. Whitcher, Valley City, N. D.
Jeremiah Growley, Broncho, N. D.
Cargill & Price, LaCrosse, Wis.
R. W. Dickey, Ellendale, N. D.
H. F. Eaton, Oakes, N. D.
Massingham & Cosgrove, Harmon, N. D.
A. Edmunds, Caledonia, N. D.
A. J. McInnes, Dazey, N. D.
F. B. & H. W. Gannon, Ellendale, N. D.
R. A. Hasse, Tappen, N. D.
H. Jacobsen, Pingal, N. D.
H. J. Johnson, Oakes, N. D.
Movius Brothers, Lidgerwood, N. D.
J. C. Mills, Hannaford, N. D.
W. L. Richards, Dickinson, N. D.
Roach, Wold & Keck, Rutland, N. D.
Whitcher Brothers, Valley City, N. D.
E. O. Tade, Wheelock, N. D.

Aberdeen-Angus

R. A. Candor, Cogswell, N. D.
O. S. Chase, Mott, N. D.
G. W. Foogman, Grafton, N. D.
Geo. L. Lillie, Sergius, N. D.
Geo. A. McFarland, Valley City, N. D.
M. F. Merchant, Ellendale, N. D.
Frank Sanford, Valley City, N. D.
Stern Brothers, Fargo, N. D.
N. Upham, Grafton, N. D.
L. H. White, Cogswell, N. D.
Eastgate Brothers, Larimore, N. D.
J. W. Reedy, Beresford, S. D.
Barnes & Shaffer, Wahpeton, N. D.
L. A. Wood, Valley City, N. D.
C. M. Perry, Aldrich Av., Minneapolis

Galloway

G. J. F. Teal, Cooperstown, N. D.
W. C. Clark, Gladstone, N. D.
G. W. Dycon, Cooperstown, N. D.
Andrew Laughlin, Lisbon, N. D.

Red Polled

O. A. Austin, McVile, N. D.
J. H. Bacon, Grand Forks, N. D.
J. W. Martin, Gotham, Wis.
J. A. England, Kenmare, N. D.
C. G. Falt & Son, Monango, N. D.
J. W. Mitchell, Wheatland, N. D.
H. M. Tucker Courtney, N. D.
C. A. Hall, Cooperstown, N. D.

D. S. Polled Durams.

F. S. Bunker, Kilbourn, Wis.

Jerseys

J. H. Bosard, Grand Forks, N. D.
J. A. Colby Gardner, N. D.
Rev. S. Currie, Park River, N. D.
J. P. Ebersole, Upham, N. D.
M. N. Johnson, Petersburg, N. D.

SWINE

Poland China

C. F. Gummert, Renville, Minn.
Geo. H. Smith, Amenia, N. D.
O. R. Aney, Wilmot, S. D.
W. W. Brown, Amenia, N. D.
E. C. Butler, Cooperstown, N. D.
Winn Brothers, Redwood Falls, Minn.
John Donnelly, Grafton, N. D.
S. Fletcher, Matteson, N. D.
O. S. Jones & Co., Madison, S. D.
L. A. Knoke, Willow City, N. D.
Axel W. Peterson, White Rock, S. D.
A. S. Hawkes, Waseca, Minn.
E. H. Schutt, Fairmount, N. D.
E. J. Cowles, West Concord, Minn.
J. A. Englund, Kenmare, N. D.
J. L. South, Casselton, N. D.
C. E. Stowers, Wheatland, N. D.
Herbert Willard, Glyndon, Minn.
J. K. Campbell, Slayton, Minn.
John DeVaney, Waverly, Minn.
H. H. Bonniwell, Hutchinson, Minn.

Berkshires

J. H. Bosard, Grand Forks, N. D.
W. S. Corsa, White Hall, Ill.
J. O. Hertsgaard, Kindred, N. D.
John Stafford, Crystal, N. D.

Yorkshires

T. H. Canfield, Lake Park, Minn.
Frank Willis, Marlette, Minn.
G. A. Forgerson, Rosemount, Minn.

Duroc-Jersey

Fargo Edgewood, Fargo, N. D.
W. E. Olive, Worthington, Minn.
Riverview Farm, Mandan, N. D.
L. L. Butler, Webster, S. D.
E. W. Smith, Buffalo, N. D.
J. E. Sparks, Jr., Armour, S. D.
L. H. White, Cogswell, N. D.
A. K. DeJong, Marion Junction, S. D.
S. O. Mason, Red Wood Falls, Minn.

Chester White

James Austin, Hannah, N. D.
P. M. Burke, Crystal, N. D.
C. E. Budlong, Albert Lea, Minn.
C. A. Gallup, Fairmount, N. D.
A. E. Thompson, Hannah, N. D.
L. C. & V. A. Hodgson, Luverne, Minn.
James Fisher, Eastman, Wis.

SHEEP

Oxford Down

J. C. Mills, Preston, Minn.
Eastgate Brothers, Larimore, N. D.

Shropshire

C. E. Stowers, Wheatland, N. D.
Chandler Brothers, Kellerton, Iowa.
Geo. H. Smith, Amenia, N. D.
Geo. McDermow & Sons, Pewaukee, Wis.

POULTRY BREEDERS

White Plymouth Rocks

J. A. Englund, Kenmare, N. D.
Eastgate Brothers, Larimore, N. D.

Live Stock Department

PROF. W. B. RICHARDS, Editor

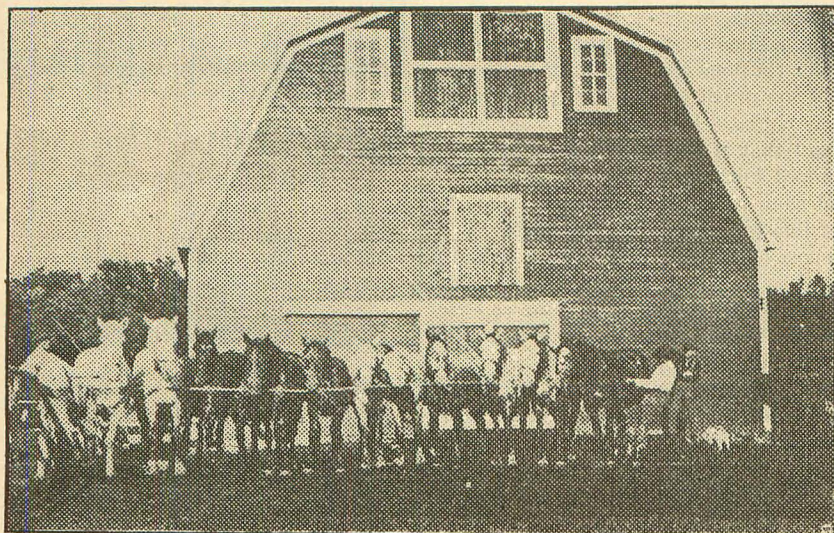
AN INVITATION

Many farmers write the Agricultural College and Experiment Station for advice on different things and the information is gladly given. It is unfortunate however, that the public has no means of getting the benefit of the advice given in answer to these inquiries as it may give many readers new ideas. From this time on the editor proposes to publish all questions and answers submitted to him unless requested not to do so, and he also invites any one who desires to submit questions to make a practice to do so. These questions sent to the North Dakota Farmer will be submitted to farmers and breeders who may be es-

pecially fitted to answer them because of long experience in solving just the thing you want to know. We hope many will avail themselves of this opportunity. If you take exception to the advice given in answer to any inquiry it would be appreciated to receive your views, and we would be glad to publish them. Do not think you can not use language that is good enough to appear in print. As long as you can make yourself understood we will look after the rest. It is facts that we are in search of, and a means of knowing more about the live stock business, and while you are helping yourself you may help many others.

fall, judging from the difficulty that many are having in securing what they wish. The reason for this is due no doubt to the flourishing condition of the sheep business during the past two or three years. Many farmers have engaged in sheep raising, and this has resulted in a demand for a large number of rams. The demand was a spontaneous one, and gave no time for the pure bred breeders, to breed enough to supply the demand.

The farmers of North Dakota will find it difficult to secure enough home bred rams to supply them for some time in the future, unless more of our farmers breed pure bred in order to supply this demand. Those who are buying rams for



North Dakota Laborers that Never "Strike."
Owned by Ed. Sautebin, Davenport, N. D.

grade flocks dislike to send outside of the state for them, because of the distance necessary to ship them resulting in high express charges. Regardless of this, however, we should reconcile ourselves to pay this extra shipping expense rather than use a grade ram or an inferior pure bred, that can be bought near at home.

I find that many expect to get a good ram too cheap, as they do not care to pay more than about \$15 or \$20 for a yearling. At the present price of sheep no one should expect to get them for this money. A good individual and well bred should command from \$25 to \$40 and no one should hesitate to pay that price.

I know of no more profitable line of stock raising one could enter in this state than the breeding registered sheep of any of the mutton breeds; especially

the Shropshire, Oxford Down Hampshire and Suffolk; for all these breeds are adapted to our conditions. Sheep raising is going to be more universally taken up by the people of this state for there is no class of animals so well adapted for the environment in this state. This means the demand for rams will increase accordingly and there will be a ready sale for them.

In case you have a large flock, hand breeding will save keeping as many rams, and at the same time get equally as good results. It is the practice of turning the rams with the flock for a short time each day or long enough to enable him or them to discover and breed the ewes in heat. They should then be placed in the barn away from other sheep; the advantages of this plan is the ram does not do a needless amount of serving neither does he over exercise and worry. By keeping them penned up they can be fed grain and hay and given good care. The practice of expecting a ram to give good results during the breeding season subsisting upon pasture alone, even poor pasture which is usually the case at this season of the year, or upon the feed that ewes would receive providing they are on dry feed; if given consideration is all wrong. For a month or two before the breeding season begins the rams should also receive some grain in order to get them in the best physical condition for the work they are to perform later on.

If you have a sire you have used for two or three seasons proving a successful breeder do not sell him even if he is related to some of the ewes you wish to breed; especially if you need to keep more than one ram. In this case cull out all the unrelated ewes place them in a field or lot by themselves and use the old sire on them. It will then only be necessary to buy a ram for the younger ewes. An aged tried sire is much better to us than a younger animal. This practice of course requires considerable more work, but the price of a ram or two may be saved and better results secured, which will more than pay for the extra labor necessary.

Many raise sheep because they require less attention than other classes of live stock kept on the farm, and at the same time net a reasonable profit. But, too often they receive undue negligence and do not furnish the profit they would if given more attention. A little extra care during the mating season as suggested above in the care and handling of the ram may result in a much larger lamb crop, a factor that decides very largely the extent of the profit will be made with the flock.

THE SCARCITY OF RAMS

There is evidently a great scarcity of rams of merit in the Northwest this

Registered Red Polled Cattle

Young stock of both sexes for sale
C. G. FAIT & SON, MONANGO, N. D.

CARE OF THE IN-LAMB EWES

From the American Breeder by the pen of
Ancient Shepperd

By this time many of the ewes will have all been served and the lamb crop of the season will have been started. This, however, is not sufficient to satisfy the purposes of the well informed shepherd. He will think of the seed now sown as the cultivator of the soil thinks of his seed. This is a very small matter. As we read the mustard seed is the smallest of all seeds, yet from it will come in time and under the due care of the sower the greatest of all trees in whose branches the birds of the air may build their nests by the thousand. Thus it is with the seed from which, in good time, the ewes will bring their lambs. It is merely the minute germ from which will grow in time the perfect young animal, complete in every requisite for the future existence of it. But the ancient lesson given to us applies still further. The young animal must be duly fed and nourished so as to supply all the required material for the full growth of it until perfect maturity. It is very certain that this food can only be supplied thru the body of the mother ewe, and this, in fact, represents the soil in which the seed of a plant grows by the nourishment derived from it. In exact similarity the young lamb, as may be said, must be nourished in the body of its mother only thru the actual substance of her body. And this must be done thru the feeding of the ewe

It is very rarely that this simple fact is considered, and proper means are taken to thus feed the lambs before they are born. The majority of the shepherds never give any consideration to this necessity. The ewes are treated just the same as if they were not carrying a lamb within them, altho this is the source of the profit of the shepherd, and from which he expects to gather in the returns from his flock. No flock may be considered as fully profitable which does not rear for each ewe at least one lamb, as good or better than itself. Indeed the best flocks are now thought to be doing well only when the lambs are double the number of the ewes. And this product is one to be made possible by culture. It is the natural habit of the ewes to bring twins; but such habits are fixed and maintained by good culture only. The habit of the corn plant is to make twin ears, but under ordinary culture one ear only is produced and a mere attempt at another is shown in the empty husk. But the best farmers fill up this with a good ear, and the crop is double the average and frequently makes now, under the best culture, a full hundred bushels to the acre.

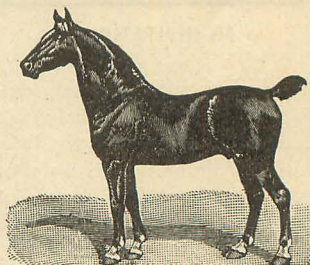
So the best managed flocks are

doubled every season, and the profits so made doubled as well, for to feed the ewe with two lambs costs no more than to feed those with one lamb. And that this may be done is as sure as that by the due fertilization of the soil and the sowing of the best seed, the yields of any farm crop may be doubled in amount in the course of a few years. We have the proof of this in the easily acquired habit of wheat to make two or three stems from one seed and each bearing an ear, or a stalk of corn having two full ears and an additional nubbin, this showing a still further attempt in time to be successful in still increasing the yield, and so we have varieties of this grain which regularly bear two or more ears up to six or seven, as a rule, under the proper culture. And as this more productive habit is easily made a fixed habit of the variety of plant and the nature of plants and animals is subject to similar rules, so we may by the skillful care and culture of the shepherd make the ewes bring two lambs as a rule at every birth.

But it has been said that this doubling of the flock is not profitable, that it costs too much to care for the twice as many lambs. It might be as reasonable to say that it costs more to care for a hundred bushels of corn on an acre of land than to take care of half as much. But this expense is only a small part of the cost of a crop. The plowing, planting, culture, and harvesting of fifty bushels on an acre are the same as of a hundred bushels as to the money spent: the time is not an element to be counted, and so the gain is all profit. And so is the doubling of the crop of lambs in a flock until the feeding time comes, when there is of course an increased cost in the feed and handling of the larger flock. But such objections as these do not count. It is true they have been made, but never by the fortunately suc-

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
Curb, Splint, Sweeny, Capped Hock,
Strained Tendons, Founder, Wind
Puffs, and all lameness from Spavin,
Ringbone and other bony tumors.
Cures all skin diseases or Parasites,
Thrush, Diphtheria. Removes all
Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism,
Sprains, Sore Throat, etc., it is invaluable.
Every bottle of Caustic Balsam sold is
Warranted to give satisfaction. Price \$1.50
per bottle. Sold by druggists, or sent by ex-
press, charges paid, with full directions for
its use. Send for descriptive circulars,
testimonials, etc. Address

The Lawrence-Williams Co., Cleveland, O.

Registered Black Percheron Horses and Red Polled Cattle.

Yamagata, 40966, 1st premium, gold medal
and championship at N. D. State Fair 1906.

Zip 13342, herd bull, first prize winner and
sweepstakes N. D. State Fair 1905.

YOUNG STOCK FOR SALE.

CENTER LANE STOCK FARM,

Kenmare, N. D.

AUCTIONEER

PEDIGREED LIVE STOCK AND
LARGE FARM SALES.

REFERENCE: Any pure blood breeder in the
Northwest.

Graduate National College of Auctioneers.

FRANK H. HYLAND,

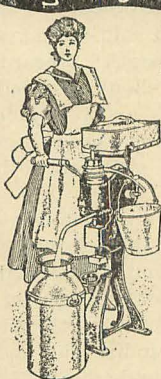
Devils Lake, - - - - - North Dakota

U S U S U S U S U S U S U S U S U

R-E-L-I-A-B-L-E

Spells the key-word to the great popularity of the

U. S. CREAM SEPARATOR



My U. S. is not out of order every week or two like my neighbors' who use other makes, ARE.
D. L. VanWorm.
Middleburgh, N. Y.

Dairymen choose the U. S. because they KNOW it can be depended upon to do the Best work ALL the time, and the Longest time, too.
May we explain to you why? Please send for complete illustrated book No. 127

SKIMS CLEANEST
Holds World's Record.

IS SIMPLEST
Two parts in the bowl.

WEARS LONGEST
Record proves it.

RUNS EASY
Users say so.

QUICKLY CLEANED
Parts few and simple.

LOW MILK CAN
Saves much lifting.

PERFECTLY SAFE
Gearing entirely enclosed.

SAVES THE MOST
Cream, time, work.

VERMONT FARM MACHINE CO.
Bellows Falls, Vermont 478

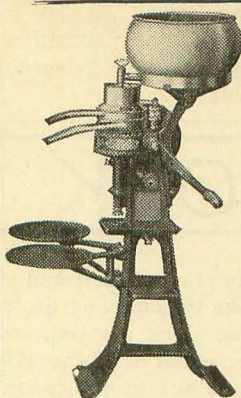
cessful shepherd who has the lambs, and pockets the doubled money they bring when sold. These excuses come from those who never will have the opportunity to realize the conditions. All reasonable persons will gladly accept these and will take all the possible means to secure them. And just now is the time to lay plans for the consummation of this desirable purpose.

Streaks in butter, according to the New York Agricultural Experiment Station authorities, are due to the presence of butter-milk after the salt has been added, and not to the imperfect working of salt in the butter, as is generally thought to be the case. The fact that when butter was not salted there were no mottles has prompted an erroneous conclusion. Still it is true that when butter is not salted there will never be any streaks in that butter, even if there is an excess of butter-milk present in the butter after being washed; but should salt be added to the butter while it is in that condition, there will surely be streaks, and no amount of extra working will take these streaks out. If the butter-milk is all washed out of the butter, and any amount of salt is added afterwards, and not worked in evenly, there will not be any streaks. This goes to show that salt is not the direct cause of mottling 'n butter, altho it has an indirect effect in its production.

Whitewash the stables before putting the cows in for the winter. A good recipe is the government formula, which is as follows:

"Half a bushel of unslaked lime, slake with warm water, cover it during the process to keep in the steam; strain the liquid thru a fine sieve or strainer; add a peck of salt previously well dissolved in warm water; three pounds of ground boiled rice to a thin paste and stir in boiling hot half a pound of powdered Spanish whitening and a pound of glue which has been previously dissolved over a slow fire, and add five gallons of hot water to the mixture, stir well and let it stand for a few days, covered up from the dirt. It should be put on hot. One pint of the mixture will cover a square yard when properly applied. Small brushes are the best. Coloring matter may be put in and made of any shade. Spanish brown yellow ochre or common clay."

There are cows which will eat all the feed you give them, but they show no profit. It pays to feed a good cow all she will eat; but to the other kind feed her just enough to fatten her for market.



DE LAVAL

THE WORLD'S RECORD CREAM SEPARATOR

Considered from "every point of the compass", so to speak, DE LAVAL Separators are truly "World Record Machines".

In original inventions, in skimming efficiency, and important improvements, in durability and ease and economy of operation, as well as in widespread usage and number of sales, the DE LAVAL has no competitor, or one that even approaches its record on any one of these points. The DE LAVAL was the original cream separator and by such all-important inventions as the "Alpha-Disc" system and "Split-Wing" device it has always led and is today from five to ten years ahead of all other machines. In close skimming, durability and ease of operation it shows an unbroken victorious record covering more than twenty-eight years. Thousands of tests have proven that it will save from \$3.- to \$5.- per cow each year of use over other separators. Nearly 900,000 machines have been sold to date and are used in every country, being distributed by more than 10,000 DE LAVAL branch houses and agencies in different parts of the world. Over 98% of the world's creameries use only DE LAVAL machines, also all government and state experiment stations and every dairyman who has had real separator experience. The latest DE LAVAL models are ideal in every respect and represent the experience of over a quarter of a century in building separators. Send for new July, 1907 catalogue of the "World's Record" Separator.

THE DE LAVAL SEPARATOR CO.

RANDOLPH & CANAL STS.
CHICAGO

1213 & 1215 FILBERT ST.
PHILADELPHIA

DRUMM & SACRAMENTO STS.
SAN FRANCISCO

General Offices:

74 CORTLANDT STREET,
NEW YORK.

73-177 WILLIAM STREET
MONTREAL

14 & 16 PRINCESS STREET
WINNIPEG

107 FIRST STREET
PORTLAND, OREG.

JERSEYS

The Standard of Excellence in Dairy Cattle.

BERKSHIRES

The Standard of Excellence in Hogs.

A Few Pigs and Occasionally a Bull Calf For Sale.

Bosard Farming Company,

GRAND FORKS,

NORTH DAKOTA

STATE SANITARY LIVE STOCK BOARD

The State Sanitary Live Stock Board held a meeting at Bismarck recently. The following account from the Bismarck Tribune of the meeting should prove interesting to breeders and owners of live stock. It is the duty of all to take an interest in the work the board is doing.

It is evident that the state live stock sanitary board, which was created by the last legislative assembly, has entered upon its duties with a spirit which promises well for the ever-growing live stock interests of the state. During its recent meeting at the state capital the board received the first report of its executive officer, State Veterinarian Crewe, and found that considerable progress was being made in the campaign against the dissemination of glanders. It was, however, found that this disease occurs to such an extent that it will more than exhaust the funds at the disposal of the board. This was much deplored by the board as the necessity of taking steps against horse-mange, tuberculosis, etc., is becoming more and more imperative.

From the report submitted by State Veterinarian Crewe, it appears that the various veterinarians engaged in field work are doing their work well and harmoniously and often do so at a sacrifice, while thru the friendly co-operation with the force of the Bureau of Animal Industry in charge of Inspector Treacy, much good is being accomplished at a minimum of cost to the state.

While the board has at present no means available to wage an active war against bovine tuberculosis, it is not over-looking this important subject, and intends to take some active measures, as soon as funds become available and the pressure caused by the glanders campaign is somewhat relieved. That bovine tuberculosis was not overlooked is shown by the following resolutions:

Whereas, a large proportion of the cases of bovine tuberculosis in this state can be traced to the importations of infected breeding and dairy stock from other states, and

Whereas, the necessary supervision of shipments of cattle can only be imperfectly carried on by this board, and

Whereas, the elimination of the source of infection mentioned, would have a beneficial influence upon the suppression of cattle tuberculosis within the state. Therefore,

Be it resolved, that the North Dakota Live Stock Sanitary Board, pray the Hon. Jas. Wilson, U. S. Secretary of Agriculture, to establish and en-

force such regulations as he may deem necessary for the prevention of interstate shipments of tuberculosis breeding and dairy stock.

A plan was also mapped out with a view of ascertaining definitely to what extent horse mange is prevalent, so that a campaign against this

LOOK YE HERE

Go to any of our dealers and buy a package or pail of Guarantee Stock Food, take it home and use it according to direction, to any animal for a test. Pick out your worst specimen on the farm if you like, and after a fair trial should you not be fully satisfied with results, let us know and we will return the money.

Guarantee Stock Food

contains ingredients that will surely benefit your animals, not only while you are feeding but also after you quit feeding. This is no theory only, but facts founded on knowledge, experience and practice, and can be verified by thousands of our customers.

Guarantee Stock Food Company,

GRAND FORKS,

NORTH DAKOTA

Swift's Soluble Blood Flour is not a condiment but a *Food* pure and simple, richer in feeding value for Calves than any other known feed. Promotes vigorous growth of bone and muscle and keeps the calf's digestion in fine order. Endorsed by Leading Experiment Stations. For prices and particulars,

Address

Swift & Company

Union Stock Yards CHICAGO

Animal Food Department
Division

Swift's Soluble Blood Flour

— for Calves
(87 per cent Protein)



disease can be intelligently organized.

Acting upon an invitation of the superintendent of the state board of health, the board elected its president and its bacteriologist to act as delegates to the International Tuberculosis congress to be held at Washington, D. C., during 1908.

In addition to the above some preliminary steps were taken with a view to illustrate that the work of the board by means of an educational exhibit of matters pertaining to animal diseases and their prevention, at the state fair, in co-operation with the Department of Veterinary Science of the State Agricultural college.

Referring to the indemnity act which provided for the partial payment of the loss of the animals condemned for glanders, the report shows that experience of the board's agents demonstrates that the law acts as a great assistance in the exposure of outbreaks of this disease that would otherwise be concealed. In many instances animals affected have a working value and in spite of the danger of loss incurred in using these animal owners persist in retaining them. In these instances the situation becomes a pecuniary one, and when owners have realized that they will even be partially compensated for this loss they advise the authorities of the existence of the disease. Under the present indemnity law there is no possibility of abuse. The owner cannot be compensated to exceed \$50 for any one animal, and the valuation and distroyal of the deceased animal is made by three disinterested parties who take oath to do their duty according to the law.

In most instances these out-breaks occur in localities where the buildings are most unsanitary and the owner is least able to sustain the loss. The removal of these sources of infection is a general protection to the community and it seems reasonable and fair that the expense of the protection should be born by those receiving the benefit, that is the general public. It is to be regretted that the recent decision of the attorney general prevents the receipt of any benefit from the law, but it is hoped that the next legislature will correct the defects in this law to give the desired assistance by indemnifying those who are now entitled to it.

POLAND CHINAS

Choice March and April pigs of the large heavy boned type with plenty of quality also two great fall boars, one a prize winner sired by Klevers Perfection 112297 and Honored Guest 2d 117143. Prices right.

W. R. ADAMS

R. No. 1

Mankato, Minn.

IMPORTANT NOTICE TO THE BREEDERS OF PURE BRED LIVE STOCK IN THE STATE OF NORTH DAKOTA

The North Dakota Live Stock Association is preparing a Breeders' Directory and wishes to list in this directory the names and addresses of all of the pure bred breeders in the state. Any pure bred breeder of any class of live stock should send for a blank in order to furnish the information that will be published in this directory. Blanks will be sent out to all of the breeders that the association knows of at the present time. There are many breeders that the association knows nothing of and it is desirous of getting these names. Small breeders are encouraged to apply for these blanks as well as larger breeders. It makes no difference whether you have a few registered females or a large number. Your name is just as much sought for in either event.

This directory will be distributed widely among the farmers of this state and the breeders of the state should derive considerable benefit from being listed. Send for blanks at once to W. B. Richards, Agricultural College, N. D., Secretary North Dakota Live Stock Association.

SELECTING BREEDING STOCK

G. W. Patterson

Ladies and Gentlemen, "The Selection of Breeding Stock" is a big subject to discuss in fifteen minutes, the time allotted to me. We must therefore do it only in spots or "just touch the high places." The first thing to consider is, why do we select breeding stock? One man will tell you it is to get beauty in the horse, another speed, another size, another bone, another feet and so on with innumerable reasons, whether it be horses, cattle, sheep or swine. And it is true that all these things are to be considered, but are they the reasons why we select?

Too often we lose sight of the main reason and go chasing after fads and fancies.

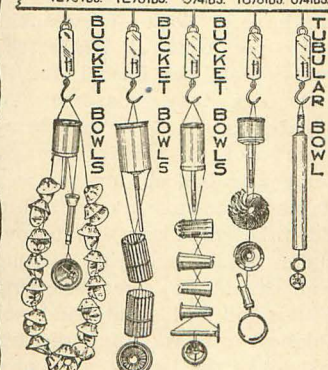
The Percheron man wants them black, the Clyde and Shire men want the feather on the legs, the Shorthorn man wants his cattle red, the Shropshire and Merino men want their sheep to be woolled on nose and legs and so on thru all the breeds.

The black Percheron, when on the market for actual use, sells at a discount when compared with his grey brother. The feather-legged Clydes and Shires will not sell with their clean-legged stable mates. The red steer will

Saves Hours of Cleaning

Of course your wife would try to wash even the worst cream separator bowl properly twice every day. But why ask her to slave over a heavy, complicated "bucket bowl," like either

12½ lbs. 12½ lbs. 8¼ lbs. 10½ lbs. 6¼ lbs.



of the four on the left? Why not save her hours of cleaning every week by getting a Sharples Dairy Tubular Cream Separator with a simple, light, Tubular bowl, easily cleaned in 3 minutes, like that on the right? It holds the world's record for clean skimming.

Sharples Tubular Cream Separators are different—very different—from all others. Every difference is to your advantage. Write for catalog M-195 and valuable free book "Business Dairying."

THE SHARPLES SEPARATOR CO.
West Chester, Pa.
Toronto, Can. Chicago, Ill.

ENVILLA STOCK FARM, COGSWELL, N. D.,

200 HEAD REGISTERED ANGUS CATTLE—Calves, yearlings, bulls and cows of the best breeding and lowest prices.

150 SHETLAND PONIES AND GRADES—Any color, size or weight.

300 ANGORA GOATS—Kids, billies and nannies.

250 REGISTERED HOGS—Duroc Jersey, Improved Yorkshire, Hampshire, Improved Chester White and Poland China. Bred gilts and young pigs.

5000 HEAD POULTRY—All varieties: Rocks, Wyandottes, Leghorns, Reds, Brahmans, Orpingtons, Houdans, Minorcas, Games, Javas, Hamburgs and Bantams.

GEESSE—Toulouse, Embden, Buff, Chinese, African and Canadian-wild.

TURKEYS—Mammoth Bronze, White Holland and Buff.

DUCKS—Pekin, Muscovy, Wild Mallard, Indian Runner and Rouen.

PEA FOWLS, PHEASANTS, PEARL AND WHITE GUINEAS, FANTAIL PIGEONS—Birds and eggs from above varieties. Some choice cockerels. Baby chicks one day old.

RABBITS, HARES, GUINEA PIGS, SQUIRRELS, COONS, ANGORA CATS, WOLF, FOX AND RABBIT HOUNDS. COLLIE DOGS.

Write us for complete price list of varieties. Remember we won 90 per cent of the Blue Ribbons the last two years at the State Fairs. Order your eggs for hatching, poultry and stock of

L. H. WHITE, Proprietor,

ENVILLA STOCK FARM,
Cogswell, N. D.

sell on the market for what he is worth on the block, and can you tell whether he was red, roan or white or do you care?

I dare say that all the wool ever produced on sheep below the eyes and below the knees would not pay for the expense of taking it off, and we all know that it is an encumbrance to the sheep, an actual detriment.

These are only a few of the things we as breeders are demanding, because of foolish prejudice caused purely by fads and fancies with no sign of the practical.

To me it resolves itself right down to this; It is only to get a better market for our farm products. The only reason we breed at all is because our grass and grain bring more net to the farmer when fed into stock than when sold on the market. Oats may be worth twenty-five cents per bushel on the farm to take to market. If they will bring ten cents when fed to good lambs, then surely a farmer would be foolish that would not feed them.

If you have a flock of ewes that raise forty per cent of lambs that pay twenty cents per bushel, for the corn and oats they consume, and your neighbor has a flock that brings fifteen per cent of lambs that pay sixty cents per bushel, for the corn and oats they consume, do you think it would take you long to discover that there was something wrong? That you should do some selecting? You should find out what kind sold for the highest price when fat, the kind that would make the largest number of pounds out of a bushel of grain, the kind that would bring the largest per cent of lambs, and as nearly as possible combine all these and other desirable qualities in one sheep.

To bring the highest price they must be built to produce the largest possible per cent of choice cuts of meat. The ability to make the largest possible number of pounds out of a bushel of grain, is one of the most valuable qualities to be sought by a breeder of any kind of animals. It requires an animal to be strongly and well built, with good back, well sprung ribs making a large barrel or middle filled with good big lungs, heart and digestive organs. It is the shop in which all the repairing and building of the whole body is done. Too much emphasis cannot be put on this. I have never yet seen an animal with short ribs that was a good one.

Having selected the foundation flock or herd, most people are inclined to think their selecting is done, but if they are to be successful breeders it is only just begun. It is as important that you select well the animals to leave the flock as it is to well select the ones to be

brought to it. I have always kept sheep when I had any stock and because of the fact that they breed younger than horses or cattle, one can get experience faster with them. For that reason I talk more about them than other animals, but nearly all of it will apply with as much force to other animals.

The first thing after selecting the foundation herd should be an intimate acquaintance with each animal, noting its peculiarities, its good and bad qualities. Where large numbers are kept the knowing of each one at sight is impossible. Marks may be resorted to that in one place mean one thing, in another, another thing. The ear is perhaps the best place to mark, and any one can invent a system of marks for the ear so that they will be able to express most anything necessary in a grade flock of sheep, and the breeders of pure bred sheep should in all cases keep a written record of their flock, noting the good and bad qualities of every sheep as fast as these qualities manifest themselves. You will find in most flocks, ewes that are poor milkers, poor mothers having little or no motherly instinct, those that produce weaklings that die or tax the patience and ingenuity of the shepherd to keep them alive, those that have trouble at lambing time in bringing forth their young, shy breeders, barren ones, and so on indefinitely.

Now if no records are kept we do not know from what source all these troubles come. We do not know that by proper selection these and all other inherited troubles can be almost completely eradicated from the flock.

These records are of more value to a breeder in selecting the sheep to sell and those to retain, than anything else I know of.

At lambing time is the best time to get acquainted with each individual ewe. To make this acquaintance so there can be no mistake, and also to aid in caring for and saving the lamb, you should provide several small hurdles about four feet long, having them in a convenient place, and things so arranged that they could be quickly made into pens arranged along the side of the barn. As the ewes drop their lambs place each one with her lambs in an individual pen. Keep her there one day or more as the necessities may require. Have your book and pencil, and punch and paint handy. If you do not wish to make a record, and merely wish to decide between the choice and inferior mothers, you could mark the choice ones in the right ear, the poor mothers in the left.

The moderate kind need not be marked, and then can be selected on individuality alone. It is well when marking the mothers to at the same time mark the lamb in the same way. If you keep a record note the sort of ewe she is and then her qualities as a mother. The ewe that you would say of, motherly instinct poor, poor milker, is just the ewe that will be the finest in the flock in the fall for she is sure to raise a

"D. S. POLLED DURHAMS"

We won every "First," "Special" or "Sweepstakes" entered for in 1907. A 12-months-old heid bull of show-yard character, and several choice young cows, not akin, cheap. (Certificates furnished). See them or write your wants to

F. S. BUNKER

Kilbourn, - - Wisconsin

Red Polled Cattle for Sale

Both beef and milk strain. Both Sexes. Nearly all ages.

C. M. CHAMBERS,

Bartlett, Iowa.

FOR SALE OR TRADE

Registered Shorthorn Cows, Heifers and Young Bulls of excellent pedigree for sale or trade for high grade or full blood Holsteins.

Chas. R. Pettes,
Lakota, N. D.

FOX TERRIERS, BEAUTIES.

(Thorobred) DUSKY TRAP STRAIN,
Colors Black, White and Tan,
Buff and White,
Tan and White.

"DEAN FARM"

Box 182, Mayville, North Dak.

"NEVER-SLIP"

COLLARS

Made to fit well, wear well, work well. So stuffed that they form a very elastic pad which fits the horse's shoulders and neck without causing sores or galls. The whang-sewed rolled-edge on the front of collar is so shaped that the hames can not slip off the collar no matter how much too big they may be. Felt-protected seam on outer edge—felt takes wear off seam. Made of russet leather, cut from center of whole hides, the "Never-Slip" gives you more wear, more work, more comfort, with less bother than any other collar on the market, and you pay no more for it. See it at your dealer's; if he does not have it write direct to us and we will send our harness-book free. Write today.

SCHEFFER & ROSSUM CO.,
238 E. 4th St., St. Paul, Minn.

lamb poorly fed, or lose it entirely. You will hate to select her as one to sell, but don't go around that record no matter if she be the choice of the flock. The one your record shows motherly instinct strong, good milker, and raised two nice lambs, will come in in the fall, thin and inferior looking, in appearance a cull, in reality one of the gems of the flock. Cut out the one, and consider all her kin unmercifully, and do not let a price tempt you to part with the other.

This is easily done in your own flock, but they say the ram is half the flock and we must purchase one occasionally. You can select the individual rightly perhaps, but strange to say I have but once heard a man ask about the dam of the ram he was buying. If it was necessary to

know this of the ewes you kept, then it is many more times important that the dam of the ram should be of the right kind.

Too often we give the male credit for all improvement. I would not detract one whit from the importance of a good male at the head of any flock or herd, but if you will show me good offspring from a poor mother that is poorly bred, I don't care what the sire is, I'll show you an exception. If you will show me poor offspring from a good mother that is well bred no matter how poor the sire, I'll again show you an exception.

For good pigs, good sheep, good cattle, good horses and even good men, as the first essential in their production, give me good mothers who had good mothers back of them.

AMONG THE SWINE.

Give me the hog for a waste product converter.

Bear in mind that wheat straw rather than oat straw should be used for bedding.

It is not always the number of pigs so much as the care the sow gives her little ones that counts in the end.

The six months-old pig has the finest meat; later the fat increases and the fiber becomes coarser.

Taken all in all the hog is the easiest to raise and yields the largest profit of all domestic animals.

As in battle so in hog-raising: It is the man behind the hog. It takes an expert these days, and the up-to-date farmer, by study and magazine reading, is becoming one rapidly.

How many pounds gain on one bushel of corn or its equivalent? That is the determining question regarding your success as a hog raiser. Once upon a time we were satisfied with four or five pounds.

Few of us remember that the hog needs salt as well as do the horses and the cow. A barrel of rock salt is one of the best investments, in that it prevents disease and stimulates a healthy appetite.

There is a little book entitled "500 Questions Answered About Swine" that is worth its weight in gold to the hog raiser. This book will be mailed post-paid to any one adding ten cents to the amount he sends for renewal subscription to the North Dakota Farmer, or it will be sent for 25 cents. Send to North Dakota Farmer, Lisbon, N. D.

A FEW SELECTIONS FROM "500 QUESTIONS ANSWERED."

Itching Hogs

What is the matter with hogs that rub against everything they come to? If it is a skin disease will the germs of disease remain on posts?

Ans.: It may be lice, or it might be some skin disease. In either case use some sheep dip. Dip the pigs just as you would sheep. Apply some also to the posts and to the sides of the pen where the pigs have rubbed. In about

ten days go over the work again to make sure of a thoro job.

Lung Fever

Is there anything called "black teeth" in young pigs? I am losing a great many pigs this spring. They are mostly from two to three weeks old when they die. They fall off in feed, ears drop back against body and they grind their teeth together. Their sides work in like a blacksmith's bellows.

Ans.: From the symptoms given it

THE PRAIRIE KING HERD OF MOST POPULAR BRED POLAND CHINAS

Present offering consists of a few April farrow boars, and open gilts. We are booking orders for bred gilts to be bred to a boar out of our 1st Prize and Champion sow at Minnesota State Fair this year.

THEO. KLASSEN,
Plainview, - - - - - Minn.

LAKE LILLIAN HERD OF POLAND CHINAS

April, May, June and July Pigs for sale; also two old boars, one and three years old.

My herd is selected from State and Interstate Fair Prize Winners. Prices right. Call or write to

G. F. FISCHER,
R. F. D., - - - - - Atwater, Minn.

FOR SALE

Duroc-Jersey Boars by Tom Quirk 58823 out of Belle's Echo 33423 sows. Will sell cheap if taken at once. Write or call. Can ship on N. P. or G. N. R. R.

E. W. SMITH

2½ mi. E. and 3½ mi. N. of Buffalo and 5 mi. S. of Ayr.

28 POLAND CHINA BOARS FOR SALE

Farrowed in February, March and April. Heavy bone, good length, deep bodies. Sired by two large boars from leading strains. Pedigree furnished. Call or write to.

CHAS. POGREBA, Montrose, Minn.

PLEASANT GROVE HERD

Shorthorn Cattle, Poland China Swine

We are making a specialty this season of shipping spring pigs. By shipping when not too large the express bill is lighter. We can supply boars and sows not related. Write us for descriptions and prices.

WINN BROTHERS,

Redwood Falls, - - - - - Minn.

POLAND CHINAS

We have for sale several choice spring pigs sired by "Giant Perfection" No. 3477, a grandson of Chief Perfection, the 2nd, the greatest hog the Poland China breed has ever produced. CENTER LANE STOCK FARM, Kenmare, - - - - - North Dakota

GREENVIEW STOCK FARM

Has 100 Poland China young pigs, sired by Rockwell Chief, Corwin U. S. 2nd and Prince Corwin. Sows strongly bred of Tecumseh blood. Orders booked now for fall delivery.

Pure Scotch and Scotch Cross Shorthorns, Young and old stock for sale. Call or write if you want North Dakota bred Poland Chinas or Shorthorns.

E. C. BUTLER,
Cooperstown, N. D.

WILLOW GLEN SHORTHORNS AND POLAND CHINAS.

The home of the Sweepstake's sow at Interstate Fair, Fargo, N. D., 1907. Herd headed by Chief Perf. 3rd sired by Chief Perf. 2nd the greatest hog the breed has produced. We have for sale choice spring pigs of both sexes by four different boars. Can furnish pigs not related. Have a four year old herd bull a grand son of Nominee and a eight-months old bull calf for sale. Prices reasonable, quality considered. Address

AXEL W. PETERSON,
White Rock, S. D.

looks as tho the pigs died of lung fever, which they probably contracted during the change of weather in the spring. Keep the small pigs in a comfortable place, especially during cold, damp weather in the early part of the year. As to black teeth, it is a myth. It is an old theory, long exploded.

Overfeeding

What makes pigs run to the trough, eat a little and then whirl and seem to have fits?

Ans.: Overfeeding is the cause. Get them out on pasture if possible. Cut off the corn for a week or two and keep them on more of a vegetable diet. Feed plenty of roots with middlings slop and keep ashes or charcoal before them all the time as a bowel regulator.

Scab

I have five cases of scab in a bunch of shoats. Some are pretty bad. What is the best treatment?

Ans.: The best treatment known is to give the pigs a bath in tar soap and hot water twice a week. When dry, apply crude petroleum all over the diseased skin. This is applied twice a week and is very effectual. Keep the diseased pigs isolated and thoroly clean and disinfect their pen with a coal tar disinfectant.

FEEDING GILTS

The gilt should have all she can eat of muscle and frame-forming feed from the time she is old enough to eat until she is ready to go into the breeding pen. She should be fed with the other pigs, provided they are given a flesh and bone forming ration such as has been suggested in the Journal of Agriculture from time to time. What is more, she should have all of this ration she can eat and whenever she wants to eat. There is no danger of producing too much frame and flesh—the danger lies in the direction of producing too much fat on a frame that is not matured. When the pigs are placed in the fattening pen the gilts intended for breeding purposes should then be separated from the feeding bunch and given a different ration.

The ration suggested for both the feeders and those intended to go in the breeding lot may be about as follows: Plenty of green pasture, clover or alfalfa preferable. In addition to this give a liberal ration of ground oats, one part; wheat bran, one part; soaked corn, two parts. These may be fed as a mixture or the corn may be given at one feed and the bran and oats at another. The pigs should have all they can eat up clean of this mixture.—Journal of Agriculture.

other fowls, as their only ambition is to eat and rest, two things which are favorable to the production of fat and growth. A flock of capons are quiet, do not crow and are easily taken care of.

A NOTED OLD ROOSTER

The Inland Poultry Journal contains an account of a noted old rooster that recently died at Bloomington, Ill. It says:—

A monument is planned for a rooster belonging to O. L. McCord, of Vermillion county, which has just died at the age of twelve years. It was claimed to be the champion of champions, having won first prize at eight successive state fairs, and also at the Pan-American Exposition. The fowl was valued at a high figure and was considered to be one of the finest blooded chickens in the country. Of beautiful form and fine color, this rooster was one of the sights of this section of the country, and chicken fanciers from all over the United States came here to see him. He had been taught many tricks by his proud owner, and would follow him around like a dog. It was not an unusual sight to see Mr. McCord walking along the street with the big rooster gravely stalking along behind him.

Dr. Arthur A. Brigham's new book, "Progressive Poultry Culture," will be published in December by the Torch Press, Cedar Rapids, Iowa. It is the latest, best and most complete work on the subject, fully illustrated. Just the thing for Xmas. Well bound. \$1.50 postpaid.

Poultry Department

Skim milk has a value as a poultry food of about 1½ cent per quart.

Kill off the unprofitable members of the flock. They are eating up the profits.

Do not attempt "diversified" poultry raising, unless you can keep all the breeds separate.

Are the walls of the poultry quarters well whitewashed, or have you neglected this important matter?

Be sure to mark your calendar for the Poultry Show in connection with the Tri-State Convention at Fargo.

The publishers of the North Dakota Farmer have faith in the advertisers in this department, have not you?

Do not overlook the value of poultry in the extermination of insects. They eat several times their weight of the pests.

Don't expect the hens to lay well when they are busy freezing their combs in a cold henhouse. One thing at a time.

If you can make a little money raising mixed breeds, you certainly can make more furnishing poultry of high grade, or 40% more eggs.

To take away all green stuff and feed fattening grains is cruelty to animals and will cost the guilty one cash, if not regrets.

An authority on the subject of poultry says that capons grow rapidly and mature early, as they are quiet and peaceable. Their flesh remains soft and juicy, like that of a young chicken, and as a rule they bring considerably more per lb. than natural birds. They are most in demand from after the holidays on until June, and are not commonly marketed until from eight to fourteen months of age. Capons make more weight for the feed they eat than do

Don't Forget

that my birds are bred for heavy egg production, as well as for the show room. A few fine cockerels for sale in all varieties, also one pair of old ferrets and rabbits of all colors. Please write, stating what you want to pay for good stock; I know that I can please you.

DAKOTA POULTRY FARM,
A. K. JOHNSON, Prop., KENSAL, N. DAK.



45 BREEDS

Pure-bred Chickens, Ducks, Geese, Turkeys, Incubators, Supplies, and Collie Dogs. Send 4c for large Poultry book, Incubator Catalog, and Price list. H. H. HINIKER, Dept. 16 Mankato, Minn.

OUR BIRDS WIN

EGGS! 45 prizes at 3 shows, 15 varieties of Poultry Ducks, Geese Turkeys. \$1.25 to \$1.50 per setting. Catalog free.

MANKATO NR'S Y AND P'LTRY YDS., Mankato Minn.

WHITE WYANDOTTE EGGS LESS THAN HALF PRICE. \$1 per 13. \$6 per 100.

Our prices have always been \$2 to \$5 per setting, and the eggs are worth it, but we now have all the chicks we can care for and shall set very few eggs after May 1st. These eggs will be from our finest pens; from big, strong, vigorous, healthy, high-scoring profit-makers, that we have bred up by our system. They will hatch lots of chicks, strong chicks, that will make winners and layers and fill your pocket-book. We will ship promptly. The quality will surprise you.

WEST LAWN POULTRY FARM

E. C. Willard, Prop.
E. Mankato, Minn.

OILS, PAINTS, AND PAINT PIGMENTS.

Our readers will regret to hear that Professor Holley of the A. C. is to leave the state and devote his energies to industrial lines in a great paint house. The experiments being conducted at the college have been directly under Prof. Holley's supervision and it is a distinctive loss not only to the college but to the paint interests of the country that his attention will be withdrawn from important lines of research in paint matters.

The public are awaiting with much interest the decision of the United States Supreme Court regarding the constitutionality of the North Dakota Paint Law. The arguments were made in Washington November 8th. We have always felt that there could be no doubt about the final decision being favorable for the state. A world of good has already been accomplished not only for North Dakota but for the entire country in calling attention to the paint evils. Probably no bulletin ever issued by any experiment station ever received a more general circulation than did No. 70 of the North Dakota station giving analyses of a large number of well known paints, some of which did not make a favorable showing.

PAINT LEGISLATION

By Charles E. Field, Before the Retail Hardware Dealers' Association of Michigan

There appears to be a little misunderstanding as to the subject upon which I am to speak. The letter inviting me asked for an address upon Paint legislation from the standpoint of a white lead manufacturer. I notice the program calls for an address on the "Other Side of the Pure Paint Question." That surely is very indefinite, and until I heard the interesting address of my friend, the previous speaker, I could not tell what the "other side" was, and now that I have heard it, and he endorses legislation so vigorously there does not appear to be any other side to talk upon. I can only hope to emphasize some of the points he has made, which I will endeavor to do from the standpoint of a white lead corroder, and in turning over in my mind what there is that I can say that would be anywhere near the degree of interest that the importance of the subject demands, or that an audience the subject demands, or that an audience of this character has the right to expect, I am reminded of the landlord of

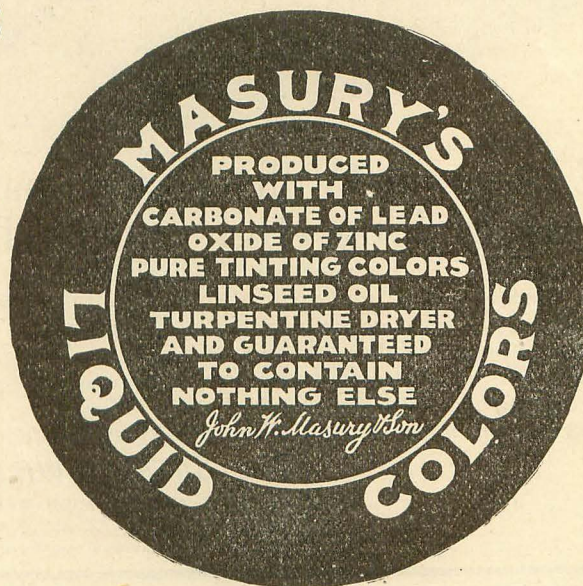
the Eagle Tavern, in David Harum, who when he was ready to close up for the night and indicated that fact by chucking two or three sticks of wood in the stove, one of the few worthies who had been sitting around all the evening jumps up and says: "Well Abe, if you

will trust us for it, we will take something for the good of the house before we shed the parting tear." The landlord, knowing his men pretty well, replied: "I don't mind it just this once, but I have always noticed that it was a dummed sight easier to get somethin' into you fellows than it is to get anything out of you."

Now, enjoying the delightful spirit of good fellowship that has permeated the entire atmosphere surrounding this meeting, enjoying the privilege of re-

MASURY'S
HOUSE
ARE

THIS
ON



LIQUID
PAINTS
PURE

LABEL
EVERY
CAN

100 PER CENT DURABILITY.

With a record of sixty-five years is the guarantee that
MASURY'S PURE LIQUID HOUSE PAINTS

Offer for Durability and Economy.

THE STANDARD OF EXCELLENCE FOR SIXTY-FIVE YEARS

JOHN W. MASURY & SON, Manufacturers. Paints, Colors and Varnishes.
NEW YORK ST. LOUIS CHICAGO MINNEAPOLIS
NORTHWESTERN BRANCH. 320-322 Second Ave. No., Minneapolis



Things Worth Knowing about The Best Paint

A

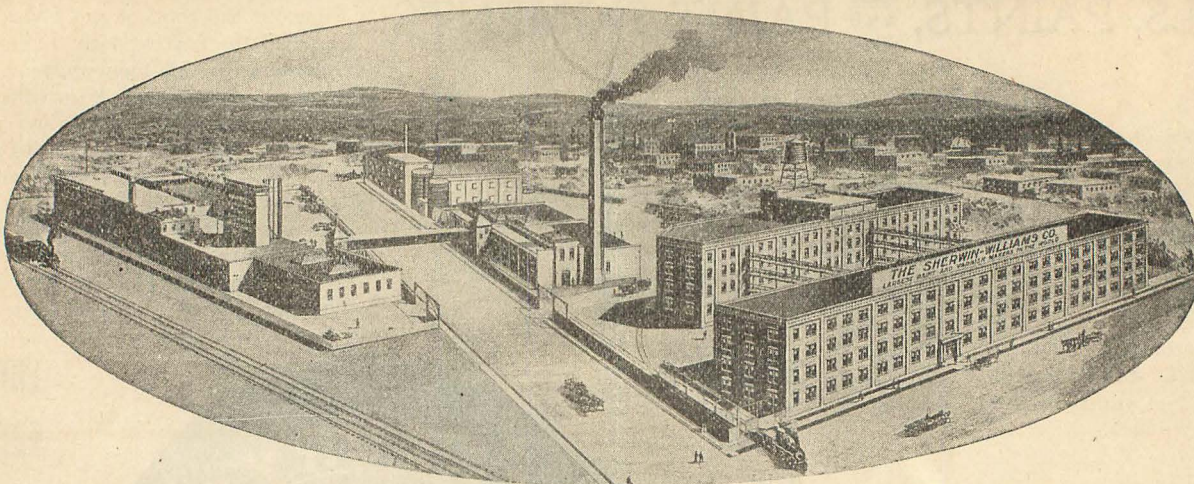
LL good paint is mixed in pure linseed oil. Linseed oil is the life of any paint. The paint that is mixed in the best linseed oil is the best paint; the brightest; the most lasting; the cheapest. We make our own linseed oil—from Northwestern flax—press it in our own mills and mix it ourselves. That's why we know that Minnesota Linseed Oil Paint is better than other paint.

In this pure Linseed Oil we grind guaranteed pure White Lead, pure Oxide of Zinc, pure Colors, with the proper Driers. — You can't buy better paint in the world than this. If we could make it any better we'd do it. We have been making this paint for thirty-six years and it's better now than it ever was. — It looks better and lasts longer than any paint you ever used. We put it up in full U. S. Government measure cans.

"A SPECIAL PAINT FOR EVERY PAINTABLE SURFACE"
INSIDE OR OUTSIDE

Some dealer in your town keeps it—or write to us for color card and we'll tell you where you can get it.

MINNESOTA LINSEED OIL PAINT CO.
THIRD ST. SOUTH MINNEAPOLIS, MINN.



Our No. 4 Plant at Montreal. We have other large plants at Cleveland, Chicago, Newark, N. J., and London, Eng.

The Sherwin-Williams Co. have Exceptional Facilities for Making High Quality Paints and Varnishes.

Our position as the greatest paint and varnish makers in the world gives us an advantage over other manufacturers of similar products. It enables us to control the quality of our materials; it saves expense in manufacture; it gives us fine distributing facilities.

The direct benefit of these advantages comes to you—the consumer. Through them you are able to buy the highest quality paints and varnishes at reasonable prices, without sacrificing quality to cost. Our products are always up to one standard—the highest.

Whatever your work may be, a Sherwin-Williams product will do it best and most satisfactorily.

THE SHERWIN-WILLIAMS CO.

LARGEST PAINT AND VARNISH MAKERS IN THE WORLD

FACTORIES: CLEVELAND, CHICAGO, NEWARK, MONTREAL, LONDON, ENG.
SALES OFFICES AND WAREHOUSES IN PRINCIPAL CITIES.



newing old acquaintances, and the making of new ones, I realize it is a good deal easier to get something into me than it is to get anything out of me, and yet I should consider myself totally lacking in appreciation, if I failed to take advantage of this opportunity to express the pleasure and the profit that has been mine in listening to the preliminary discussion that has occupied your attention, and the very interesting address of my long time friend, Mr. Heath.

I believe strongly in organizations of this character. I had the honor to preside over the councils of the National Paint, Oil & Varnish Association one year as its President, an organization in point of capital represented probably the largest of similar organizations in the country, and like your own, bringing together men with kindred interests, to discuss and consider questions of vital importance, and I have seen the good results that can be obtained by a common effort in a common cause.

These are days of great organization all around us, forcing great problems upon our business as well as our social life. They must also be days of great effort on our part, that call for action as well as appreciation, for work as well as counsel, and for deeds as well as faith. No organization in these strenuous times, no matter what its purposes and

What Will It Do?

This is the question for you to ask when buying paint.

There are too many paints on the market that have no merits except that they sell at a low price or are made of S. P. Lead or Lead and Zinc.

What you want in paint is

- 1st.—DURABILITY
- 2nd.—COVERING CAPACITY
- 3rd.—APPEARANCE
- 4th.—COST PER YEAR TO PROPERLY PROTECT THE SURFACE

The Heath & Milligan Paints

possess the above qualities and insure BEST RESULTS

ASK OUR AGENT OR WRITE TO

Heath & Milligan Mfg Co

Paint and
Color Makers



Chicago
U. S. A.

ideals may be, can accomplish very much for good if it meets solely for social purposes, or is overburdened with indifferent membership. While a law-abiding citizen is a good citizen, if we all attained that eminence and stopped there, we would have a world of Pharisees, that recognized the limit of duty as living up to the letter of the law—a very selfish condition of things in my judgment.

No, my friends, it is more than that and beyond that, it is doing things, doing something for others that counts in the world today, and has placed this nation of ours in the very forefront of all nations of the earth.

And so in organizations of this kind, we should go out and beyond that which is of mere personal interest from a business standpoint, and to look for and work for that which is of general interest to seller as well as buyer, to dealer, as well as manufacturer, and therein I believe do we best serve our own interests, and therein today is our opportunity.

If you will favor us with a remittance for your subscription, either 50 cents for one year, or \$1.00 for three years, we will give you absolutely free a year's subscription to FARM & HOME, a semi-monthly farm paper of the highest grade. Do it now.

Paint that Fits

Use Pure White Lead, thinned with Pure Linseed Oil, and your paint can be mixed to suit your work.

No ready-mixed paint preparation can be equally suitable to old or new, rough or smooth, hard or porous surfaces.

CARTER Strictly Pure White Lead

makes the best paint possible to produce. Meets every condition, gives any tint or color, covers most surface and gives longer wear than any other paint in the world. Contains no clay, chalk or other adulterant that makes ordinary paint mixtures crack, scale and fade. Every atom is paint.

Write for our booklet, "Pure Paint." Tells how to know good paint, and shows six beautiful color schemes.

Address Dept. W
CARTER WHITE LEAD CO., Chicago, Ill.
Factories: Chicago—Omaha.

In discussing White Lead and Paint Legislation, it is not my thought to do so in a controversial manner. It would, I think, be highly improper for me to occupy the few moments at my disposal by your courtesy in attempting to extol the merits of my own particular product, or to criticize the claims of any competitors. We shall therefore have to do with simply methods and the practice, and consider wherein we as manufacturers, dealers and consumers can jointly work in a common effort for the benefit of all concerned. But in considering Paint Legislation from the

standpoint of a corroder, it will be necessary for me to refer to the history of the use and abuse of White Lead as a paint, and I know something of what I want to talk about, for I have been engaged in its manufacture and sale for thirty years; during that time, I am pleased to say, with a concern and its successor that has never deviated from a desire and a determination to produce the best and purest white lead that it is possible for brains and capital to produce.

(Continued in December Issue.)

BRADLEY & VROOMAN PAINT

Is all paint—good paint.

The best paint it is possible to make.

Every gallon is full measure—full value.

EVERY CAN GUARANTEED!

If you paint your house, barn, or anything else, with Bradley & Vrooman Paint, you will get better results in both wear and appearance than you will if you use any other.

Bradley & Vrooman Co.,
Paint Makers

2629-35 Dearborn St.,—Chicago.

THE ONLY BARN PAINT

bearing a formula label showing its composition and conforming in every detail to the laws of North Dakota.

PITKIN'S TRIPPLE CROWN BARN PAINT IS GUARANTEED TO WEAR 5 YEARS



The greatest part of the cost of painting is the labor necessary for applying. Therefore it is certainly economy to buy the paint which will wear the longest and at the same time give satisfaction.

Pitkin's is that paint. Pitkin has been making paint for 40 years and has a reputation for integrity and reliability that is in itself a guarantee of the goods.

Be sure to buy the right paint; not the cheapest paint.
Send for a free sample.

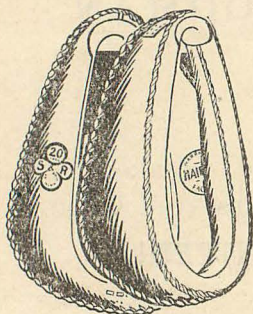
Geo. W. Pitkin Co.,
Paint and Color Makers,
Benton Harbor, Mich.

AMONG OUR ADVERTISERS.

A UNIQUE HORSE COLLAR

Herewith we are illustrating two views—front and back—of a unique horse collar called the "Never-Slip," which is finding much favor with farmers and team-owners.

The collar is the important part of a work harness. A good collar means more comfort for the horses, more work for the benefit of the master; a poorly made, poorly fitting collar means more or less trouble all the time—it means sore shoulders and discomfort for the horse, and loss for the horse-owner.



"Never-Slip" collars are made from russet leather, cut from the center of heavy whole sides. They are not colored so that none but absolutely perfect sides can be used in their manufacture. The buyer therefore gets a collar without a blemish when he buys this brand, as the least defect in the leather would show at a glance. That isn't always true of other makes.

The manufacturers, Sheffers & Rossum Co., St. Paul, Minn. will be pleased to tell you more about this splendid collar and tell you where you can buy them if you will ask for the information. Write today, mention this paper, and they will send you free their new harness book.

TO PREPARE DELICIOUS DISHES

The little art of preparing common foods in a variety of different ways has made many a woman famous as a cook, and a reputation for tasty cooking comes doubly easy to the woman who possesses an Enterprise Meat and Food Chopper. By its use, meats of all kinds, fish, vegetables, and practically every kind of food can be easily and quickly chopped and made into a great variety of the most toothsome dishes. Even the common potato can be prepared in many different and delicious ways that most women never heard of.

Our readers are advised to send to the Enterprise Manufacturing Company of Pa., 249 Daughin St., Philadelphia, for a free copy of their new cook book, "The Enterprising Housekeeper." The regu-

lar price of this book is 25 cents, and it is well worth, it, but any of our readers can secure a copy free on request. Besides hundreds of new and unusual recipes, it contains a great deal of valuable information and helpful kitchen suggestions.

A STRONG BERKSHIRE ARGUMENT

The Berkshires need no booming. They stand acknowledged without an equal as the best general-purpose hog bred. They thrive anywhere, are docile and prolific mothers of large, uniform litters, and are great sucklers, and rear their young very rapidly. They attain great size, the males sometimes weighing 1,000 and the sow from 500 to 800 pounds. They are great hustlers and quick growers, and make the best bacon of any of the lard-producing hogs. And the Bosard Farming Company have just such Berkshires.

In view of the rapidly increasing use of the telephone among farmers, with the large number of rural telephone lines now in operation, in course of construction and in contemplation, an announcement of great interest to farmers generally, deferred until our next issue, will be of special interest. Watch for the announcement. Meanwhile address the St. Paul office of the Western Electric Co., whose ad appears on opposite page.

Boys and Girls

We are going to give away 1000 Children's Stereoscopes and Fifty Views to the first 1000 Boys and Girls who induce their parents to renew their subscriptions to the North Dakota Farmer before Christmas. All you need do is to have your father send your name and five cents for postage and packing, when he remits for the North Dakota Farmer, and we will send to your address the stereoscope and Fifty views. Your father has forgotten to renew, now don't you forget this offer. Remember 55 cents for one year and \$1.05 for three years means a stereoscope for you. If your father has paid in advance, send us 10 cents and the names of ten farmers who do not take the N. D. Farmer and we will send the stereoscope and views. Address

NORTH DAKOTA FARMER,
Lisbon, N. D.

If you are looking for some choice cockerels, which have been bred for fancy and utility purposes, to head your breeding pens next season, it will pay you to write to A. K. Johnson, Prop. of Dakota Poultry Farm, at Kensal, N. D., as he has a few fine birds for sale in almost all varieties.

All who want to engage in Poultry raising, or to replenish their flocks with new stock, should note the advertisement of H. H. Hiniker of Mankato, in this paper, and write and get his catalogue. Mr. Hiniker is a large and successful breeder of the best strains of poultry.

W. R. Adams informs us that he secured more prizes at two county fairs than all other exhibitors combined. A little brother to one of the boars that secured 2nd at Mankato and now offered will be used at the Minnesota Experiment Station. His ad appears in the Swine Department.

Among the best hog raisers in Minnesota you will find Theo. Klassen, who is offering some pretty fine gilts to be bred from prize boars. Those who have dealt with Mr. Klassen have found him reliable and accommodating. A trial order will convince you that his holdings are high grade.

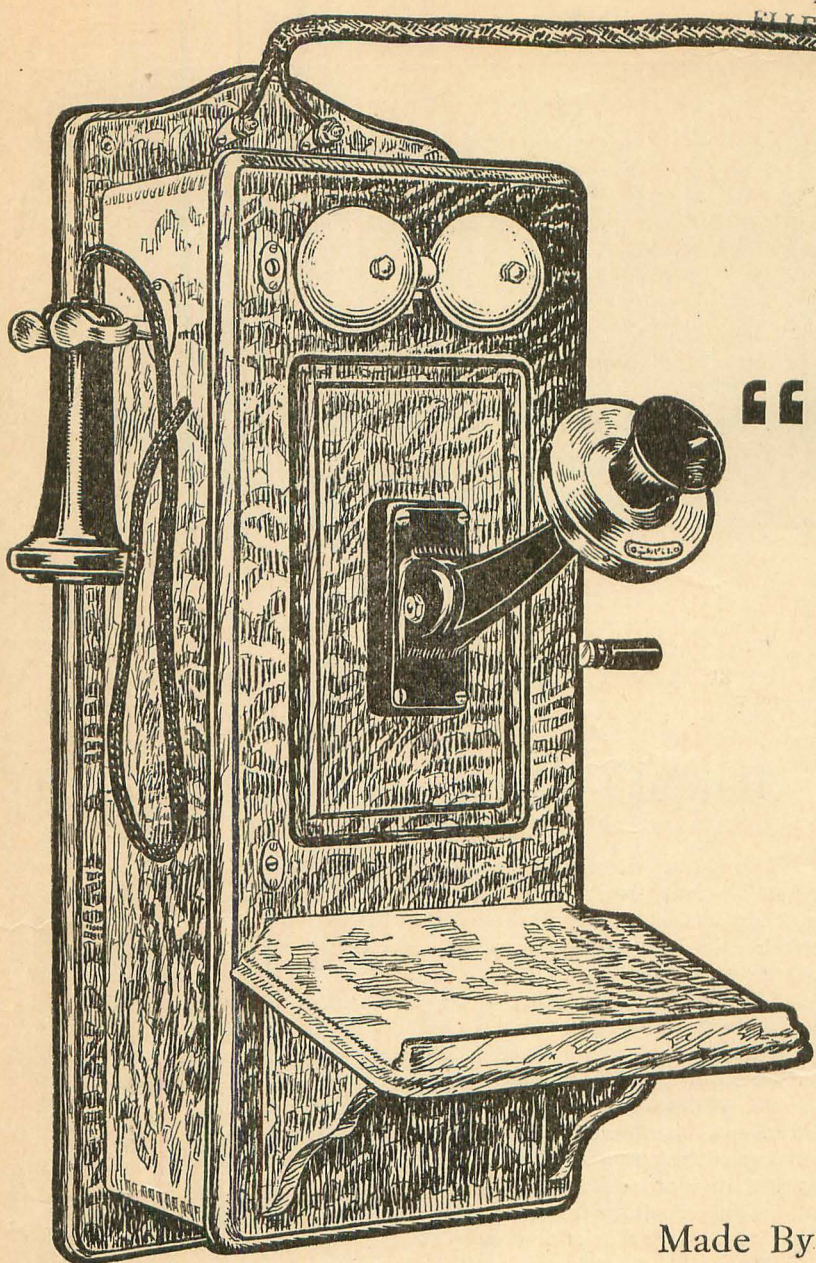
The offer of the Pathfinder, Washington, D. C. is certainly fair. The reading of the epitaph is not so easy as it seems. The boys and girls will be interested. You may be sure of this: The Pathfinder is a clean, bright and reliable paper. It is about the only paper the writer reads thru every issue.

One of our readers desires to find a trained mastiff for a watch dog. He desires also to find some one who has a Great Dane. If any of our readers can furnish the name of a breeder or owner of such dogs, we would appreciate very much the information, as would also one of our readers.

When our plant caught fire, our first thought was, "the safe has our mailing list anyway." Every farmer can have a safe at a very low price. Hatcher Bros. will tell you about it on page 9.

You will have to act promptly if you would take advantage of E. W. Smith's offer of Duroc-Jersey boars.

LIBRARY
UNIVERSITY OF NORTH DAKOTA
ELLENDALE BRANCH
FARGO, NORTH DAKOTA



Standard
"BELL"

Apparatus
and
Equipment
For All
Telephone
Purposes

Made By The

WESTERN ELECTRIC COMPANY

THE LARGEST MANUFACTURERS OF TELEPHONIC APPARATUS IN THE WORLD

Sometime you will want to use your telephone in an emergency involving property or health or perhaps life. It may be to talk with the next house or the next town or city or perhaps with some one half-way across the continent. A "fair weather" telephone is only a plaything. Buy good material and build good lines. Then you will have an outfit which will stand by you when you need it. We make and sell the kind in daily use over short distances and also half-way across the continent.

Write Us For Prices and Information.

WESTERN ELECTRIC COMPANY

Manufacturers and Suppliers of all Apparatus and Equipment used in the Construction, Operation and Maintenance of Telephone Plants

- | | | | | | |
|--------------|------------|--------------|-------------|----------------|---------------|
| New York | Harrisburg | Indianapolis | Des Moines | Omaha | Seattle |
| Philadelphia | Pittsburg | Chicago | St. Louis | Denver | San Francisco |
| Atlanta | Cincinnati | St. Paul | Kansas City | Salt Lake City | Los Angeles |

Use Address Nearest You

The North Dakota Farmer Better in 1908.

FORTY PAGES.

SPECIAL ILLUSTRATED ARTICLES.

BETTER SERVICE.

Every delinquent subscriber is a "rider" instead of a "pusher." Won't you help "push?"

THE EASIEST WAY TO MAKE MONEY

is by first acquiring knowledge and then acting accordingly.

IT COSTS YOU NOTHING

To read up and study the subject of FARMING BY IRRIGATION. Why not spend some of your evenings this winter acquiring knowledge that will enable YOU to MAKE SOME EASY MONEY, by acting accordingly. The United States Government, thru the Reclamation Service branch of the Interior Department, will gladly supply you with any information you may desire relative to the Government Irrigation Projects in the Lower Yellowstone Valley, the Buford Trenton and Williston Districts. Address your inquiries either to the U. S. Reclamation Service Information Bureau at Washington, D. C. or to the Project Engineers on the ground. From the Secretaries of the Water Users' Associations for these various projects you can also secure many valuable pointers pertaining to the present status, general conditions, opportunities and land values under each project.

IT WILL COST YOU JUST ONE CENT

To send a postal inquiry for this information and it may ultimately result in placing you in possession of a splendid farm under a system of Government irrigation that will sell at \$100 and more per acre. Send a card today.

LAND AT \$1,500 AND \$2,000 PER ACRE

In California and Washington, is sold almost every day in the year. Why is it? Just because it can be irrigated and the crops assured from year to year. The land itself, without the water, can be bought for \$4 or \$5 per acre.

RAISING ORANGES AND BANANAS IN NORTH DAKOTA

Is impossible, even with irrigation, but with water we can raise the finest quality of alfalfa, clover and timothy, grains of all kinds and sugar beets, in such quantities that it will make the land pay big interest on a valuation of \$100 and \$150 per acre. Everything is now in readiness for next season's irrigation. If you will post yourself during the winter and then act early next spring, you will be in time to get in on the ground floor. 40 acres of this land under irrigation makes a splendid home and a big farm for any family of five. From \$15 to \$25 per acre will buy it. We are always glad to answer inquiries and furnish free literature, maps, illustrations and other information about these projects, their possibilities and land values.

THE WILLISTON LAND COMPANY,

(INCORPORATED)

WILLISTON, NORTH DAKOTA,

Responsibility of Stockholders \$50,000.00.

W. B. OVERSON, President.

JOSEPH W. JACKSON, Vice Pres.

E. R. BROWNSON, Sec'y.

R. M. CALDERWOOD, Treasurer.

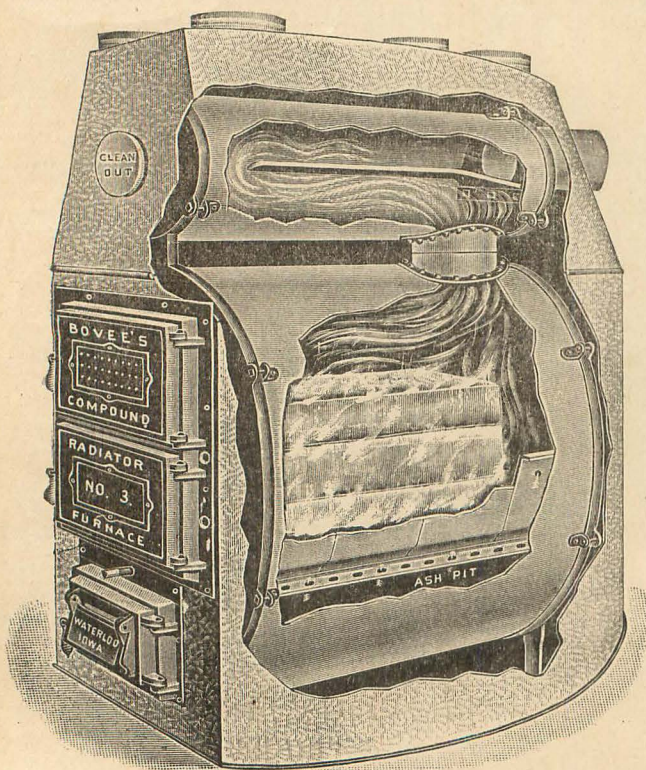
E. G. GREENUP, General Manager.

LONG-ESTABLISHED.

RESPONSIBLE.

RELIABLE.

Ask for Illustrated Booklet, Government Maps, Etc.



BOVEE'S Straw Burning Furnace

Save all of your fuel bill by burning baled straw. Be independent of Railroad combines. This furnace burns straw baled by any common baler. Will burn bales 17x21 inches. Straw or hay makes neat handy fuel and will hold fire over night. It can be baled for the cost of hauling coal and saves the entire fuel bill. This furnace is also a perfect and very economical wood, coal or lignite coal burner. It has Bovee's Hot Blast Ventilating System and Return Circulating Radiator, giving perfect ventilation and saves one-third of the fuel.

Send for our special prices and illustrated catalog free.

We manufacture the largest and best line of furnaces, 24 styles and sizes.

BOVEE GRINDER & FURNACE WORKS,
Waterloo, Iowa.